The ACCOUNTING REVIEW

JUNE, 1940

The ACCOUNTING REVIEW

Vol. XV JUNE, 1940 No. 2

Editor: ERIC L. KOHLER, *Assistant Editors:* ARTHUR W. HANSON, and HARRY D. KERRIGAN

Published quarterly in March, June, September and December.

Entered as second class matter at the Post Office at Menasha, Wisconsin.

Manuscript and correspondence relating to editorial matters should be addressed to the Editor at Knoxville, Tennessee.

Advertising and advertising inquiries and subscription and business communications should be addressed to the Secretary-Treasurer, Henry T. Chamberlain, 6525 Sheridan Road, Chicago, Illinois.

Subscription price: $4 a year; $1 a single copy; postage free.

Acceptance for mailing at the special rate of postage provided for in the Act of February 28, 1925, authorized February 12, 1932.

CONTRIBUTORS TO THE JUNE ISSUE

William Cooper (*A French Examination Problem;* and *Winnebago Distilling Company*) is a Research Assistant in the Finance Department of the Tennessee Valley Authority. He has recently been appointed University Fellow at Columbia University.

Robert L. Dixon, Jr. presented his paper (*Fixed and Variable Costs*) at the Philadelphia convention of the Association last December. He is an assistant professor of accounting in the School of Business at the University of Chicago.

V. L. Elliott (*Functions and Activities of the Controller's Department*) has been Controller of The Atlantic Refining Company since 1926.

Wyman P. Fiske (*Training for Controllership*) is Professor of Accounting at Massachusetts Institute of Technology.

Robert F. Graham is a research accountant with the Securities and Exchange Commission. His paper (*Valuation for Profit Determination*), prepared for a forthcoming issue of the *Georgetown Law Journal*, is reproduced with the consent of the editor of that *Journal*. Mr. Graham was formerly on the staff of Arthur Anderson & Co.

Warner H. Hord (*Bond Discount and Debt Expense in Terms of Consistent Accounting*) is Assistant Professor of Accounting at Tulane.

George R. Husband (*The First-In, Last-Out Method of Inventory Valuation*) has contributed a number of articles to the Accounting Review. He is professor of Accounting at Wayne University, Detroit.

Asa S. Knowles, Dean of the College of Business Administration and Director of the Bureau of Business Research at Northwestern University (*Teaching Load of Accounting Instructors*) presents here an extension of a research project, in collaboration with William C. White, on "Evaluation of Faculty Loads in Institutions of Higher Learning." Professor White is Chairman of the Committee on Engineering Research at Northeastern University and Acting Dean of Engineering and Director of the university's Day Division programs. He is a member of the Executive and Public Relations Committees of the Engineering Societies of New England.

Harry L. Kunze (*A New Form of Funds Statement*) is connected with the extension division of the University of Wisconsin.

Adolph Matz studied two years at Heidelberg and received a Ph.D. from the University of Pennsylvania. His present article (*Accounting as a Tool for Economy in German Business*) will be followed in a later issue by a discussion of cost-accounting principles and practices in Germany.

Walter B. McFarland's article (*The Economics of Business Costs*) is a further development of a previous article, "The Basic Theory of Standard Costs," which was published in the June 1939 issue of the Review. He is an instructor in economics at the Sheffield Scientific School at Yale.

C. A. Moyer's paper (*Should Obsolescence be Separately Accrued?*) is an abstract from a Doctor's thesis presented at the University of Illinois. He is now an instructor in accounting in the School of Business Administration.

Mary E. Murphy of Hunter Business College continues her series of articles (*The Profession of Accountancy in England*).

George W. Peak was employed two years as Finance Assistant in the Kentucky Department of Revenue before accepting a fellowship at the University of Denver. His paper (*Auditing Assessment Accuracy*) is a proposal for an extension of the auditing of municipal assessments.

F. L. Preu, Assistant Accountant-in-Charge of the U. S. Treasury Accounts Office at Newark, New Jersey (*Accounting for Emergency Relief Funds*) has recently submitted a dissertation on Emergency-Relief accounting in the Graduate Division for Training in Public Service at New York University. *J. F. Schoen* is Chief of the Accounts Control Division of the Central Accounts Office for Emergency-Relief accounting in the office of the Commissioner of Accounts and Deposits of the Treasury Department.

H. T. Scovill (*Premium on Redemption of Preferred-Stock Issues*), a former president of the Association, is Head of the Department of Business Organization and Operation at the University of Illinois.

The Accounting Review

VOL. XV JUNE, 1940 No. 2

VALUATION FOR PROFIT DETERMINATION

ROBERT F. GRAHAM*

FOR MANY years controversy has centered upon the question: "Should 'depreciated cost' or should some form of 'present value' of fixed assets be reflected in the balance sheets of business organizations?" Many cases involving valuation have been before the courts.[1] Of these, the leading accounting and financial cases pertain to rate-fixing,[2] the recapture clause,[3] taxation,[4] and transactions between corporations and their promoters,[5] *inter alia*. Few cases relate to the question and then only indirectly.[6] The opinions of the Securities and Exchange Commission are more helpful.[7] However, accounting theory must first be consulted for an understanding of the problem.[8]

It has become almost axiomatic that accounting is not a process of valuation but a method of profit determination employed in measuring the earnings of business enterprises. From the accounting viewpoint profit may be considered to be the excess of income over the cost of producing it.[9] The income account or profit-and-loss statement may be defined as a statement of the operations of an enterprise, in which all income and expenses or gains and losses for a stated period are assembled, the balance being the net profit or loss for the period.[10] The function of this statement is not only to disclose periodic net profit or loss and the source of such profits and losses but also to provide a

* The views set forth herein by the author are not to be taken as indicating the views of the Securities and Exchange Commission or members of its staff other than the writer.

[1] For a table of approximately 1500 cases on valuation and related problems see Bonbright, *Valuation of Property* (1937), II, 1199–1219.

[2] Smyth *v.* Ames, 169 U.S. 466 (1898); United Railways *v.* West, 280 U.S. 234 (1930), (basis for depreciation).

[3] St. Louis & O'Fallon Railway Co. *v.* United States, 279 U.S. 461 (1929).

[4] LaBelle Iron Works *v.* United States, 256 U.S. 377 (1921); United States *v.* Ludey, 274 U.S. 295 (1927), (basis for depreciation).

[5] Old Dominion Copper Mining and Smelting Company *v.* Lewisohn, 210 U.S. 206 (1907); McCandless *v.* Furlaud, 296 U.S. 140 (1935).

[6] Atlanta, Birmingham & Coast Railroad Company *v.* United States, 296 U.S. 33 (1935); American Telephone & Telegraph Company *v.* United States, FCC, and Nat'l. Assn. of R.R. and Utility Commissioners, 299 U.S. 232 (1936).

[7] Reference frequently is made to the Securities Act of 1933, as amended, 48 *Stat.* 74 (1933), 48 *Stat.* 905, 15 U.S.C. §77a (1934), 49 *Stat.* 557 (1935), 52 *Stat.* 1240, 15 U.S.C. §77c (Supp. 1938), Pub. L. No. 253, 76th Cong., 1st Sess. (Aug. 3, 1939), §301 *et seq.;* and to the Securities Exchange Act of 1934, as amended, 48 *Stat.* 881, 15 U.S.C. §78a (1934), 49 *Stat.* 704 (1935), 49 *Stat.* 1375 (1936), 49 *Stat.* 1921 (1936), 52 *Stat.* 1075, 15 U.S.C. §78 (1) (Supp. 1938), as the Securities Act of 1933 and the Securities Exchange Act of 1934, respectively, without further citation, unless the reference is to a specific section of one of the Acts.

[8] To a growing extent accounting concepts are becoming integrated with existing concepts of the law. See Fisher, "Legal Regulation of Accounting," *J. of Accty.*, LV, (1933), 9; Berle and Fisher, "Elements of the Law of Business Accounting,' *Col. L. Rev.*, XXXII, (1932), 573; Berle, "Accounting and the Law," ACCTG. REV., XIII (1938), 9.

[9] American Institute of Accountants, *Accounting Terminology* (1931), 93 *et seq.*

[10] *Ibid* at 87; Montgomery, *Auditing Theory and Practice* (5th ed. 1934), 458.

basis for forecasting future income, expenses and operating results.[11]

From the investor's viewpoint the profit-and-loss statement is of primary interest in that it furnishes information necessary to measure the success of management in accomplishing the fundamental purpose of a business venture—making profits—and gives some indication of earning capacity and future prospects.[12] It serves as a guide to the investing stockholder in valuing the securities of the business and in exercising his only important prerogative to "buy, hold, or sell."[13] On the other hand, the balance sheet, a statement of the condition of an enterprise at a given date, is of interest to the investor principally as a means of ascertaining whether the enterprise has sufficient working capital and financial strength to enable it to continue profitable operations, or to develop earning power.[14]

Profit determination over the span of an enterprise's life is a relatively simple matter. When a business has been wound up, its properties converted into cash, its debts paid, and its remaining cash distributed to stockholders, its life profits may be measured by the excess of cash realized from the sale of commodities or services over the cash expended in producing such commodities or services, plus net cash realized from other operating and non-operating activities. On the other hand the determination of profits for a limited period presents many difficulties. These difficulties flow from the fact that cash realized in one period may be applicable to commodities or services sold in another and cash expended in one period may be applicable to commodities and services produced over many periods. Accounting thus becomes a process of timing —applying income and costs to a succession of fiscal periods. Cash expended for physical properties is amortized or depreciated over the estimated useful life of such properties. The amounts amortized are reflected as cost of production in statements of profit and loss for the years in which the amortization charges are made. The unamortized costs are carried in the balance sheet as deferred charges to future operations. The balance sheet thus becomes not a statement of present values, but a statement of historical facts relating to the investment of funds in the business, the disposition of such funds, and the reflection of changes in condition brought about by the conduct of the business. In this light, the balance sheet's greatest importance is in its use as a device by which the accuracy of profit determination may be tested.[15] Profit determination in turn is the *sine qua non* of accounting since valuation of securities by investors rests upon reported and anticipated profits.

The American Accounting Association has stated its position on this question in the following terms:

> The basic assumption made here is that a corporation's periodic financial statements should be continuously in accord with a single coordinated body of accounting theory, and that the purpose of the statements is the expression, in financial terms, of the utilization of the economic resources of the enterprise and the resultant changes in and position of the interests of creditors and investors. Accounting is thus not essentially a process of valuation, but the allocation of historical costs and revenues to the current and succeeding fiscal periods. Each of the following propositions embodies a corollary of this fundamental axiom.

---

[11] Guthman, *The Analysis of Financial Statements* (1925), 39; Kester, *Advanced Accounting* (3rd ed. 1933), 64; Klein, *Elements of Accounting Theory and Practice* (1915), 171.

[12] American Institute of Accountants, *Examination of Financial Statements by Independent Public Accountants* (1936), 4.

[13] Bennett, *Accounting Principles and Practice* (1920) 288; Hatfield, *Accounting* (1927), 240, 241; Morrison, "The Interest of the Investor in Accounting Principles" Acctg. Rev., XII (1937), 37.

[14] Hatfield, *Accounting* (1927), 240, 241; 1 Scovill, *Elementary Accounting* (1924), 267.

[15] Hoxsey, "Writing Down Assets and Writing Off Losses," *Amn. Accountant*, XVIII (1933), 103.

> 1. The accountant's valuation of physical assets at any given point of time involves the determination of what part of original cost should be written off to reflect consumer, expired, or lost usefulness, and what part should be carried forward as reasonably applicable to future operations.
>
> 2. Where a substantial change in beneficial ownership has occurred, cost is measured by cash outlay or by the fair market value of property acquired in exchange for securities.
>
> . . .
>
> 7. If values other than unamortized costs are to be quoted they should be expressed in financial statements only as collateral notations for informative purposes.
>
> . . . An extreme change in the value of money might vitiate the usefulness of cost records but there seems to be no sound reason for repeated adjustments of asset values for the ordinary changes in price levels commonly experienced from one generation to another.
>
> The adoption of this basis for carrying assets in the accounts would eliminate the heterogeneous results of much recent corporate accounting practice. Present procedure is unsatisfactory in that it permits periodic revaluation of assets, up or down, in accordance with current price levels and expected business developments. Occasional uncoordinated "appraisals" produce in the average financial statement a hodgepodge of unrelated values of no explicable significance to the ordinary investor, if indeed they have any to the managements of the enterprises affected. A history of cost and cost amortization is a consistent record of actual occurrences measured according to an intelligible formula, and constitutes an essential starting point in financial interpretation.[16]

For the reasons enumerated, accounting authority recommends, as a general rule, the use of historical cost[17] less depreciation or depletion as a basis of valuation of fixed assets in financial statements.[18] However, some writers have recognized a tendency in recent years to show fixed assets at values other than historical cost.[19] This tendency to revalue assets may also be observed in reports filed with the Securities and Exchange Commission.[20]

The valuation principles adopted by American companies have been developed independently for divergent purposes—rate-making, financing, capitalization, reorganization, and taxation.[21] The principles and procedures developed and followed have necessarily varied somewhat in accordance with the peculiar needs in each of these fields. However, American companies have generally used historical cost, or cost modified by isolated appraisals, as the basis of valuation of fixed assets.

Those who advocate the use of valuation bases other than historical cost point to the following asserted advantages:

1. The economic or financial position of an enterprise is more accurately portrayed.
2. "True" capital is maintained.
3. "Effective" costs of production can be determined.
4. Accounting data will be comparable.[22]

---

[16] "A Tentative Statement of Accounting Principles Affecting Corporate Reports," Acctg. Rev., XI (1936), 188, 189.

[17] For present purposes the "historical cost" of an asset is equal to the sum of money or the value of services or their equivalent expended by the present holder in acquiring the asset and in making additions thereto.

[18] Finney, *Introduction to Principles of Accounting* (rev. ed. 1936), 400, 401; Hatfield, *Accounting* (1927), 77, 282; Kester, *Advanced Accounting* (3rd ed. 1933), 103, 104; Kohler and Morrison, *Principles of Accounting* (2d ed. 1931), 351; Montgomery, *Auditing—Theory and Practice* (5th ed. 1934), 273; Paton, *Accountants' Handbook* (2d ed. 1934), 735.

[19] Finney, *Introduction to Principles of Accounting* (rev. ed. 1936), 283; Hatfield, *Accounting* (1927), 77, 283, 284; Kester, *Advanced Accounting* (3rd ed. 1933), 104; Kohler and Morrison, *Principles of Accounting* (2d ed. 1931), 356 *et seq.*; Montgomery, *Auditing Theory and Practice* (5th ed. 1934), 273; Littleton, "Value or Cost," Acctg. Rev., X (1935), 271, 272.

[20] See note 53 *infra* for an indication of the extent to which companies subject to the requirements of the Securities Exchange Act of 1934 have reflected revaluations of assets in their accounts.

[21] The writings of certain German and French theorists on financial statements of inflation times have influenced certain American writers, notably Sweeney, who has developed a method termed "Stabilized Accounting." Sweeney, *Stabilized Accounting* (1936). This method is primarily concerned with homogeneously reexpressing the money amounts of former dates in the current index of the general price level and is particularly helpful in supplementing the financial data customarily published. However, it is not generally employed and for that reason will not be considered in this paper.

[22] Paton, *Accountants' Handbook* (2d ed. 1934), 736;

It is undoubtedly true that at times it may be essential to have information concerning the valuation of the assets of an enterprise on the basis of replacement or reproduction cost for such purposes as the obtaining of additional credit or interesting new capital in the enterprise. However, it is not necessary to adjust the amounts at which the fixed assets are carried in the balance sheet in order to disclose this information. From a balance-sheet viewpoint the situation of a particular company may be more informatively portrayed by stating the fixed assets at historical cost and setting forth the facts regarding the appraisal values of the properties in a parenthetical or collateral notation to the balance sheet. An additional advantage of this method is that revision of the capital stock and surplus accounts is not required.[23]

The maintenance of "true" capital, in the economic sense, is a further advantage which it is asserted is to be derived from adoption of the replacement or reproduction cost valuation theory. The advocates of this idea believe that the capital accounts of an enterprise should be adjusted to show "true" capital or so-called "physical" capital (i.e., the excess of the total funds of an enterprise—expressed as to *physical assets* in terms of dollars equivalent to the replacement or reproduction cost of such assets—over liabilities)[24] rather than nominal capital; that depreciation should be based upon the appraisal values in order to provide for the replacement of the assets at replacement or reproduction cost;[25] and that "true" capital thus may be maintained. If this theory is followed to its logical conclusion, it will require recognition, not of current replacement cost, but rather of the cost of replacement at the time of replacement, an unknown cost at an unknown future date. Thus, if an asset costing $60,000 has been replaced at a cost of $50,000, the depreciation expense for the asset replaced should have totaled $50,000, not $60,000. Similarly, if an asset costing $60,000 has been replaced at a cost of $70,000, the depreciation expense for the asset replaced should have totaled $70,000, not $60,000, over the life of the asset. Thus, $10,000 less in the first case than the amount originally invested in the asset, and $10,000 more in the second, should have been withheld in the business in one form or another.[26] However, the replacement-cost theory in its usual form has reference not to the cost of replacement at some future date, but to the hypothetical cost if the asset should be replaced at the present time.

Many accounting authorites agree[27] that if appreciation of assets is recognized in the accounts, depreciation should be based upon appraisal values and revaluation surplus should be maintained as permanent capital. On the other hand, it is not necessary to include appreciation of assets and revaluation surplus in the accounts in order to prevent impairment of capital. A concern may withhold revenues for the purpose of replacing assets at prices in excess of cost by the simple expedient of appropriating a portion of earned surplus for that purpose, thereby indicating that such surplus is to be considered unavail-

Daniels, *Financial Statements* (1939), 173; Kester, *Advanced Accounting* (3rd ed. 1933), 104; Hatfield, *Accounting* (1927), 283.

[23] Paton, "Aspects of Asset Valuations," Acctg. Rev., IX (1934), 127.

[24] Paton, *Accountants' Handbook*, (2d ed. 1934), 743; Daniels, *Financial Statements* (1939), 177.

[25] It may be said in passing that the accumulation of depreciation will not provide for the replacement of assets. Annual depreciation charges merely allocate a portion of the cost or appraisal value of a concern's assets to cost of production. The depreciation reserve is strictly a valuation account. Through charges for depreciation, revenues are withheld in the business, if earnings are sufficient to cover depreciation, and in ordinary practice reinvested in divers assets, but seldom in a fund for the replacement of fixed assets.

[26] This is based on the assumption that earnings cover depreciation.

[27] See note 40 *infra*.

able for dividends.[28] By this method so-called "physical" or "true" capital can be maintained as accurately as by following the replacement-cost theory, and can be done without destroying the historical significance of the accounts.

Far more important is the fact that the replacement- or reproduction-cost-valuation theory obviously cannot accomplish its objective of accurately maintaining so-called "physical" or "true" capital. In practice, appraisals are made, if at all, at occasional uncoordinated dates—usually in a period of high or low price levels.[29] Accounts based on such appraisals reflect neither the present "physical" capital nor the "physical" capital required to be maintained in order to replace assets in the future as need arises. The last would require annual appraisals and the task of annual appraisals would be too great a burden to be practicable.

An allied argument has to do with the determination of the "effective" costs of articles produced.[30] In computing such costs depreciation is of course taken into consideration as one of many expenses making up the total cost of the product. Since most of the other expense items are included on the basis of current cost, it is argued that depreciation should be included in the computation on the basis of current replacement cost rather than historical cost of fixed assets in order to determine today's cost of goods produced on a consistent basis, i.e., the economically effective cost of the product at the present time.[31]

This argument is directed more towards the determination of selling prices than to an accounting for profits. Undoubtedly much of the data employed in accounting for profits, particularly that accumulated in income and expense accounts, and the profit-and-loss statements for past years, is an invaluable aid to the management in determining future selling prices and in estimating what the results of future years may be. Recognition of this fact, however, does not imply that predictions as to the future should be injected into the summary of past operations,[32] or that the costs involved in the computation of profits for a past period determine selling prices for a succeeding period.[33]

Before the information that is accumu-

[28] Daniels, "The Valuation of Fixed Assets," Acctg. Rev., VIII (1933), 312.

[29] See note 53 *infra*.

[30] Paton, *Accountants' Handbook* (2d ed. 1934), 744, 745

[31] The arguments as to the accuracy of the portrayal of the economic or financial position of an enterprise and and as to the maintenance of "true" capital are usually advanced during periods of advancing price levels. The argument as to the determination of the effective costs of production is made in periods of declining price levels as well as in periods of advancing price levels. It is frequently claimed that failure to reduce selling prices on a basis consistent with declining economically effective costs increases selling resistance and prolongs periods of depression. In addition, it is claimed that stating aggregate production costs on the basis of historical costs instead of economically effective costs results in the showing of greater deficits, the psychological effect of which also prolongs periods of depression. In profit-and-loss computations of cost and profit per unit produced, the amount of depreciation included in unit cost is frequently lower in periods of depression on a basis of historical cost of fixed assets than would be the amount of depreciation included on the basis of lower replacement costs of fixed assets. This may be attributed to the fact that in computing unit costs on the generally accepted accounting basis the amount of depreciation allocated to each unit is customarily based on normal rather than actual production. As a result of this method, large amounts of depreciation are frequently unabsorbed in production costs. Such unabsorbed items are usually charged directly against profit and loss and may create deficits, but are not included in computations of cost per unit. Likewise it should be pointed out that if asset valuations and depreciation of such assets were written down because of subnormal economic conditions, it would follow that in determining unit costs the amount of depreciation allocated to each unit should be based on subnormal rather than normal production volume. Thus depreciation per unit might be greater, even though total depreciation expense were less. On the other side of the case it is claimed that in periods of high price levels selling prices based on historical costs do not provide for the maintenance of "true" capital. In order to avoid this difficulty it would be necessary to utilize new replacement costs whenever there is a significant variation in such costs.

[32] This in effect is what is done when values other than cost are employed in determining the profitableness of completed transactions.

[33] Hull, "Plant Appraisals—Their Treatment in the Accounts," Acctg. Rev., II (1927), 306; Daniels, *Financial Statements* (1939), 178.

lated and presented in statement form as a part of the accounting for profit can be used for price determination, additional analyses giving effect to changed conditions and known variables are necessary. For example, it might be necessary to analyze unit cost into what may be termed fixed, partially variable, and fully variable expenses and then to analyze each of these to determine the extent to which increases or decreases of unit cost would result from fluctuations in volume. It would then presumably be necessary for the management to estimate the volume of sales that could be expected at various sales prices. An equation of unit cost determined by the analyses of accounting data, and estimated selling prices at various volumes of production, would then indicate the relative profitableness of various courses of action.

Obviously such analyses must be based, at least in part, on accounting data; but these features of price determination are outside the scope of accounting for profits. Financial accounting deals with what has happened, whereas price-fixing is dealing with judgments as to the results that will flow from various courses of action. Consequently, the argument that replacement cost should be included in the accounts in order to determine the economically effective costs of articles produced should be considered as belonging to the realm of price-fixing rather than to the field of accounting.

Finally, the argument is made that the replacement-cost theory of valuation should be adopted for the purpose of making accounting data comparable as between companies. But as one writer has pointed out in reply, it is the purpose of accounting to record results for the individual enterprise. The use of replacement cost as a basis for valuation of assets tends to make all situations look alike rather than make accounting data more comparable.[34] If it is desirable from the economists' viewpoint or for other purposes to supplement the fundamental accounting statements with reports reflecting current price levels rather than historical cost, this objective probably can be achieved more effectively by the adoption of "Stabilized Accounting" than by the replacement-cost theory of valuation.[35]

The replacement-cost theory of valuation may be understood more readily by considering the various ways in which the accounts may be affected in giving recognition to the appreciation of assets. Ordinarily the asset accounts are written up to bring them into agreement with their appraised values and an amount equal to the write-up is credited to revaluation surplus. While some writers are in favor of making the credit entry to unrealized appreciation rather than to revaluation surplus,[36] such treatment does not appear

---

[34] Daniels, *Financial Statements* (1939), 179.

[35] See note 21 *supra*.

[36] Finney, 2 *Principles of Accounting* (1928), Ch. 38, p. 2. This writer indicates that writing up fixed assets to appraisal values is not objectionable, but that the credit should not be passed to surplus because surplus is supposed to be available for dividends, whereas credits resulting from revaluation of assets are not available for dividends. *Cf.* Finney, *Introduction to Principles of Accounting* (rev. ed. 1936), 283. This argument is not very convincing in view of the fact that under the corporation laws of some states dividends may be charged against revaluation surplus. The following statutes expressly permit stock dividends and expressly forbid cash dividends from surplus arising from revaluation of assets: Idaho, *Idaho Code Ann.* (1932) §29–129; Illinois, *Ill. Rev. Stat.* (1939) c. 32 §157.41; Indiana, *Ind. Stat. Ann.* (Burns, 1933) §25–211; Louisiana, *La. Gen. Stat. Ann.* (Dart., 1939) §1106; Ohio, *Ohio Code Ann.* (Throckmorton, 1936) §8623–38; Washington, *Wash. Rev. Stat. Ann.* (Remington, Supp. 1939) §3803–24. Michigan, *Mich. Stat. Ann.* (Henderson, 1935) §21-22. expressly permits stock dividends on any class of shares and apparently permits cash dividends on preferred shares from such surplus. Wisconsin, *Wis. Stat.* (1937) §182.19, expressly permits and New York, *Stock Corporation Law* §58, and Vermont, *Vt. Pub. Laws* (1933) §5850 appear to permit both cash and stock dividends on any class of shares from such surplus. For a discussion on valuation to determine profits or surplus available for dividends see 2 Bonbright, *Valuation of Property* (1937), Ch. 27 (prepared by Joseph L. Weiner in collaboration with Bonbright) and the authorities collected there.

to be sound.[37] The credit entry should be treated as revaluation surplus rather than earned surplus inasmuch as it has none of the characteristics of earned surplus.[38]

After appreciation has been set up, the question of depreciation presents a serious problem. Usually, total depreciation charges are based upon appraisal value rather than cost. While an amount equal to the full charge for depreciation is credited to the reserve for depreciation, the charge is taken into the accounts in one of the following ways:

1. Depreciation on cost may be charged against the operations for the year and depreciation on the excess of appraisal value over cost charged directly against revaluation surplus.
2. Depreciation on the appraisal value may be charged against operations for the year (thereby decreasing earned surplus) and an amount equal to depreciation on the excess of appraisal value over cost transferred from revaluation surplus to earned surplus to offset the effect of charging depreciation on appreciation against operations.
3. Depreciation on the appraisal value may be charged against operations for the year, thereby charging depreciation on appreciation against earned surplus and treating revaluation surplus as permanent capital.

Under the first method the appreciation has no effect upon operations. While under the second method earnings are decreased, there is no change in the surplus available for cash dividends, as the decrease in earnings is offset by a surplus adjustment. Obviously the ultimate effect of the first and second methods could be accomplished as well by stating the assets at cost and referring to appraisal values parenthetically or in a footnote. Under the third method charges against operations for depreciation are increased and earnings are accordingly decreased; revenues equal to the charges for depreciation are intended to be withheld in the business to provide for the replacement of fixed assets or to be invested in other assets and revaluation surplus is treated as permanent capital. This method is the only one that provides for the maintenance of so-called "physical capital"; but, as previously pointed out, even that could be accomplished by a direct appropriation of earned surplus without giving recognition to appreciation in the financial statements.[39]

The weight of authority holds that if fixed assets are carried at appraisal values, charges to operations for depreciation should be based upon appraisal values. There is some disagreement, however, as to whether appraisal surplus should be retained as a permanent capital account.[40] In either case these writers hold that appraisal values should be expressed in financial statements by parenthetical reference or footnote only and that charges against operations for depreciation preferably should be computed on cost.

---

[37] Kohler, "The Concept of Earned Surplus," ACCTG. REV., VI (1931), 210.

[38] *id.* at 209, 212. Also see "Report of the Special Committee on Definition of Earned Surplus," *Year Book of the American Institute of Accountants* (1930), 175.

[39] The effect of each of the methods for providing depreciation is well described by Kester, *Advanced Accounting* (3rd ed. 1933), 534, 535.

[40] Editorial, ACCTG. REV., IV (1929), 193; Wildman, "Symposium on Appreciation," ACCTG. REV., V (1930), 54, 55; Report of the Special Committee on Earned Surplus, *Year Book of The American Institute of Accountants* (1930), 175; Kohler, "The Concept of Earned Surplus," ACCTG. REV., VI (1931), 210, 211; Staub, "Depreciation of Appraised Values," *Amn. Accountant*, XVII (1932), 9; Thornton, *Financial Examinations* (1933), 183; Trouant, *Financial Audits* (1937), 134, 135; all agree that if fixed assets are carried at appraisal values, revaluation surplus preferably should be maintained as a permanent capital account. On this point Montgomery, *Auditing Theory and Practice* (5th ed. 1934), 419, does not agree with the other authorities cited. All of the authorities cited agree that if fixed assets are carried at appraisal values, depreciation on appreciation, as well as on cost, should be charged against operations. *Cf.* Berle and Means, *The Modern Corporation and Private Property* (1932), 310.

Proponents of the reproduction- or replacement-cost theory of valuation have pointed for support to decisions of the courts in rate cases which have employed as the proper basis some form of present value as distinguished from historical cost. It should be noted, however, that reproduction cost has never been adopted in such cases as the sole test of present value.[41] Moreover, the Court sustained the contention of the Interstate Commerce Commission that the accounts of a railroad company formed to acquire certain railroad property in exchange for its securities need not reflect the reproduction cost of such property.[42]

In other fields the Supreme Court has looked favorably upon historical cost as a basis of valuation. In American Telephone & Telegraph Company v. United States[43] the Court sustained a uniform system of accounts prescribed by the Federal Communications Commission which requires plant properties to be carried at "original cost" of the properties at the time when they were first dedicated to the public use.[44] In LaBelle Iron Works v. United States[45] the Court, referring to a tax statute which required determination of the amount of invested capital said:

> There is a logical incongruity in entering upon the books of a corporation as the capital value of property acquired for permanent employment in its business and still retained for that purpose, a sum corresponding not to its cost, but to what probably might be realized by sale in the market. It is not merely that the market value has not been realized or tested by sale made, but that sale cannot be made without abandoning the very purpose for which the property is held, involving a withdrawal from business so far as that particular property is concerned. Whether in a given case property should be carried in the capital account at market value rather than cost may be a matter of judgment, depending upon special circumstances and the local law. But certainly Congress in seeking a general rule, reasonably might adopt the cost basis, resting upon experience rather than anticipation.

It should also be noted that notwithstanding the views of the Court in rate cases, the American Institute of Accountants,[46] the American Accounting Association,[47] the Chamber of Commerce of the United States,[48] J. M. B. Hoxsey, then Executive Assistant, Committee on Stock List of the New York Exchange,[49] the

---

[41] Simpson *v.* Shepard (The Minnesota Rate Cases), 230 U.S. 352 (1913); Georgia Railway and Power Company *v.* Railroad Commission, 262 U.S. 625 (1923); Los Angeles Gas Co. *v.* Railroad Commission, 289 U.S. 287 (1933); Railroad Commission *v.* Pacific Gas & Electric Co. 302 U.S. 388 (1937).

[42] Birmingham & Coast Railroad Company *v.* United States, 296 U.S. 33 at 39 (1935): "Clearly the only pertinent value is that for purposes of sale or exchange. Cost of reproduction is to be given little, if any, weight in determining such value, in the absence of evidence that a reasonably prudent man would purchase or undertake the construction of the properties at such a figure."

An interesting commentary upon the case is made by Commissioner Healy of the SEC in an address, "The Next Step in Accounting," Acctg. Rev., XIII (1938), 1, at 5, 6 delivered before the American Accounting Association in December 1937.

[43] 299 U.S. 232 (1936). *Cf.* New York Edison Co *v.* Maltbie, 244 A. D. 685, 281 NY Supp. 224 (1935), *Aff'd.* 271 NY 103, 2 N.E. (2d) 277 (1936) in which a provision of a uniform system of accounts requiring the excess of costs to the accounting company over the "original cost" at the time when the properties were dedicated to the public use to be amortized over a period of years. This case was distinguished in the American Telephone & Telegraph Company case on the ground that the Uniform System of Accounts prescribed by the Federal Communications Commission did not require the "excess" to be amortized if the total cost to the accounting company represented a price paid in an arm's-length transaction.

[44] In effect it is provided that property accounts are to be carried at cost to the accounting company and segregated so as to show "original cost" and the excess of cost over "original cost." FCC, *Uniform System of Accounts for Telephone Companies* (1935), 26, 27; *Cf.* FPC, *Uniform System of Accounts Prescribed for Public Utilities and Licenses* (1936), 19, 38, 39. Various systems of accounts prescribed by the Interstate Commerce Commission provide that plant property shall be carried at cost, e.g., see ICC, *Classification of Investment in Road and Equipment of Steam Roads* (1914) 10, 11; ICC, *Uniform System of Accounts for Electric Railways* (1914), 95.

[45] 256 U.S. 377, 393 (1921). *Cf.* United States *v.* Ludey, 274 U.S. 295, 300 (1927) (depreciation).

[46] *Examination of Financial Statements by Independent Public Accountants* (1936), 1, 2.

[47] "A Tentative Statement of Accounting Principles Affecting Corporate Reports," Acctg. Rev., XI (1936), 188, 189.

[48] *Depreciation Treatment in Production Costs* (1929), 7.

[49] "Accounting for Investors," *J. of Accty.*, L (1930), 257, 258.

Interstate Commerce Commission,[60] and other Federal agencies,[61] recommend cost as the proper basis of property valuation for accounting purposes.

The foregoing arguments have been directed toward the asserted advantages of writing up fixed assets from a basis of historical cost to a higher reproduction- or replacement-cost basis. The same arguments apply, with but few exceptions, to the asserted advantages of writing down fixed assets from historical cost to a lower replacement- or reproduction-cost basis.[62] The practice of writing down fixed assets to values lower than depreciated cost has attained some degree of popularity since 1929 and numerous write-downs were made at the low price levels prevailing in the years 1931–34.[63] In some cases such write-downs may have been needed to correct the accounts for inadequate charges for depreciation made in prior years, and to correct the accounts for obsolescence which was observed but not recorded.[64] Adjustments to reflect accrued obsolescence or to correct prior years charges for depreciation are not objectionable provided such write-offs are charged to earned surplus or to earnings.[65]

As has been indicated, the theoretical arguments advanced above against the replacement-cost theory of asset valuation apply to both write-ups and write-downs and indicate the weaknesses inherent in that theory of valuation. The practical

---

[60] *Report on Depreciation Charges of Telephone Companies and Depreciation Charges of Steam Railroad Companies*, 177 ICC 351, 352 (1931): "Beyond question the evidence adduced in these proceedings strongly supports the use for accounting purposes of original cost to the accounting company as the basis for depreciation charges."

[61] See note 44 *supra*.

[62] For a discussion of the dangers inherent in writing down assets see Note, "Writing Down Fixed Assets and Stated Capital," *Yale L. J.* XLIV (1935), 1025.

[63] Fabricant, "Revaluation of Fixed Assets 1925–1934," *National Bureau of Economic Research Bulletin No. 62* (1936), 2 *et seq.* Fabricant's study which was based on reports filed with the SEC, was " . . . confined to an examination of reports of 208 large industrial concerns (mining and manufacturing chiefly, with a few from trade, construction and service) covering the years 1925–1934, inclusive. The companies were chosen at random from the file of the New York Stock Exchange and therefore include only corporations listed on it." The following data is taken from this study:

Relationship of Write-Ups and Write-Downs of Property, Plant and Equipment

*Number of Companies**	*Reporting Write-Downs*	*Reporting No Write-Downs*	*Total Number*
Reporting Write-Ups	21	10	31
Reporting No Write-Ups	53	69	122
Total Number	74	79	153

* Only corporations in existence during each year 1925–1934 are included in this particular tabulation. 55% of the concerns whose reports were examined in this study reported property, plant and equipment revaluations. 20% reported write-ups. 48% reported write-downs. Of the concerns reporting write-ups during the period 68% also reported write-downs. Fabricant points out that, "Write-ups of property, plant and equipment reached a peak, in respect of number, in 1928," and that, " . . . of the write-downs of tangible fixed assets 44% were made in the one year 1932 and 18% in 1931. During the four years 1931–1934, 84% of the aggregate write-downs of the decade occurred."

[64] "Discrepancy between book value and some sort of 'current-value' is the basis of practically all revaluations. In most of the reports, that included some explanation of the entries recorded, the only statement was simply to the effect that an appraisal had been made of property, plant and equipment. Some 40 of the companies reporting write-ups and write-downs of property offer this explanation. . . . Appraisals, of course, are not reasons for revaluations but only methods of getting at the amounts by which to revalue. . . . More fundamental are such factors as changes in general price levels, discovered obsolescence, and errors in earlier estimates of depreciation and depletion. Price changes are mentioned specifically by some ten corporations as the cause of the revaluations made by them. . . . Obsolescence is mentioned specifically in only a few instances. . . . However, it is probably a major factor accounting for downward revaluations. Revised estimates of earlier charges for depreciation and depletion are responsible for a considerable number of revaluations of property accounts. About a dozen reports mention this. . . . The idleness of certain portions of plant is given as grounds for write-down of values by ten or twelve corporations. Naturally it is more or less permanent idleness that is anticipated. The anticipation of permanent disuse may reflect only the pessimistic mood inherent in a long and severe depression, and the concomitant conservatism it engenders . . . a considerable number, especially of write-downs during the last few years, represents cancellations of write-ups at earlier dates. Such cancellations are reported, in our sample, by as many as thirty companies." *id.* at 6 *et seq.*

[65] The propriety of writing down fixed assets to reflect accrued obsolescence or to correct prior years charges for depreciation is generally recognized. See, for example, Hoxsey, "Writing Down Assets and Writing Off Losses," *Amn. Accountant*, XVIII (1933), 103 *et seq.*

aspects of replacement cost as a basis of valuation must also be considered. The following criticisms are applicable to both write-ups and write-downs and it is believed that they are of sufficient importance to justify the rejection of replacement cost as a basis of valuation of assets in financial statements:

1. Price levels fluctuate widely during the course of the business cycle. The life of fixed assets is, in general, relatively long in relation to the business cycle and may encompass several complete cycles.
2. Frequently management has not made revaluations because it subscribes to a certain valuation theory, but rather it has made such adjustments because of some expediency and then has attempted to justify them theoretically.
3. There are serious doubts as to the validity of the fundamental principles followed in appraisal practice and procedure and in any case their application involves the exercise of an unusually large degree of judgment which is not susceptible of measurement or control.
4. Frequently, replacement or reproduction cost is not even a measure of "present value" or "fair value."

The wisdom of the American Accounting Association's stand against "repeated adjustments of asset values" is apparent upon an examination of the general index of wholesale commodity prices. The monthly averages of the United States Bureau of Labor Statistics, General Index of Wholesale Commodity Prices has fluctuated widely; in 1932 it declined to unprecedented depths (64.9); in 1937 after five years it again approached normal (86.3); and in 1938 it declined again (78.6).[56]

[56] See Standard Statistics Company, Inc., 3 Standard Trade and Securities, Section 8.

The replacement-cost or purchasing-power theory of asset valuation might be sound during inflationary times such as those experienced by France and Germany following the World War. It might even be generally advisable to supplement the regular financial statements with data expressed in terms of purchasing power. But where the price level has fluctuated widely without evidence of a continuous upward or downward trend, there is, in the words of the Association's Executive Committee, "no sound reason for repeated adjustments of asset values for the ordinary changes in price levels commonly experienced from one generation to another." It must be remembered that the life of property is generally long enough to encompass several periods of high and low price levels. Certainly, the revaluation of assets at the peak of a high price level or at the depth of a low price level has no validity as a long-term measuring device. To be consistent, those enterprises whose assets were revalued in 1932 and 1933 should revalue their assets at the present time or at least reinstate historical cost and charge depreciation based on the higher values against operations. This, however, leads to the conclusion that if replacement or reproduction costs are to be used, revaluations must be made at very frequent intervals, at least whenever substantial changes appear from the amount established by the most recent valuation.

As a matter of fact, the replacement-cost theory of valuation is, in practice, generally employed to justify the obtaining of a result desired for other reasons.

In practice many concerns, after writing up assets, continue to charge depreciation based on cost against operations and charge depreciation on appreciation against revaluation surplus. This procedure improves the appearance of the balance sheet but does not accomplish the

purposes of the replacement-cost method. On the other hand, after writing down assets, nearly all concerns adopt the replacement-cost theory of valuation to the extent of basing subsequent charges for depreciation on the revised values. Frequently write-downs have been made solely for the purpose of reducing annual depreciation charges in subsequent years and thereby benefiting future operations.[57]

In short, many concerns wrote up assets during a period of rising prices, improving the appearance of their balance sheets in order to obtain additional financing or credit on the strength thereof, but they did not penalize earnings with charges for depreciation on the higher values claimed for their property. These same enterprises and others, in a period of falling prices, subsequently wrote down assets and equity accounts for the avowed purpose of reducing depreciation charges and thereby improving future earnings. From a practical viewpoint the inconsistency of management in this respect is a strong argument against the replacement-cost theory of valuation.

Perhaps the greatest objection to the replacement-cost theory of valuation lies in the fact that appraisals have so frequently been found to be unreliable. In a number of its stop-order opinions under the Securities Act of 1933 the Commission has found occasion to criticize appraisals of properties of industrial concerns,[58] of intangibles,[59] and of oil and mining properties.[60] In most of these cases the Commission's criticisms are based upon the failure of the appraisers to follow accurately and fairly the norms or scientific method upon which the appraisal was said to have been determined; upon the inadequacy of the examination of the properties; and upon the lack of engineering or factual data on which to base a valuation. In one of its opinions the Commission said:

> If an appraisal, or a representation of value purportedly based thereon, is not to be misleading, the appraisal must meet two tests. In the first place, as we have observed in a previous opinion, "an appraisal purports to be more than an arbitrary determination of value. It seeks to attach value to objects as a consequence of method." *In the Matter of Haddam Distillers Corporation*, 1 SEC 37, 42 (1934). In other words, it is misleading to represent as an appraisal a valuation which is not based solely on scientific method, but which rests in whole, or even in part, upon foundations that are arbitrary or capricious. In the second place, there must be a fair and accurate application of the methods purported to be followed. 'Thus, valuations contained in an appraisal purporting to follow certain norms, even though in the final analysis they represent merely informed judgment, nevertheless are representations that these norms have been accurately and fairly followed. If the norms purported to be followed are not fairly observed, the valuations finally arrived at are in essence misrepresentations of fact because they untruthfully describe the basis upon which judgment has been exercised.' *Ibid.* see also *In the Matter of American Terminals and Transit Company*, 1 SEC 701,

[57] For illustrations of comments on write-downs in reports to stockholders see Daniels, "Principles of Asset Valuation," ACCTG. REV., IX (1934), 115, 116.

[58] See In the Matter of Haddam Distillers Corporation, 1 SEC 37 (1934); In the Matter of Continental Distillers and Importers Corporation, 1 SEC 54 (1935).

[59] See In the Matter of Petersen Engine Co., Inc., 2 SEC 893 (1937); In the Matter of Breeze Corporations, Inc., 3 SEC 709 (1938).

[60] See In the Matter of Big Wedge Gold Mining Company, 1 SEC 98 (1935); In the Matter of Plymouth Consolidated Gold Mines, Ltd., 1 SEC 139 (1935); In the Matter of La Luz Mining Corporation, 1 SEC 217 (1935); In the Matter of Franco Mining Corporation, 1 SEC 285 (1936); In the Matter of Great Dike Gold Mines, Inc. 1 SEC 621 (1936); In the Matter of American Terminal and Transit Company, 1 SEC 701 (1936); In the Matter of Gilpin Eureka Consolidated Mines, Inc. 1 SEC 752 (1936); In the Matter of mining and Development Corporation, 1 SEC 786 (1936); In the Matter of Livingston Mining Company, 2 SEC 141 (1937); In the Matter of Emporia Gold Mines, Inc. 2 SEC 209 (1937); In the Matter of National Boston Montana Mines Corporation, 2 SEC 226 (1937); In the Matter of Consolidated Mines Syndicate, 2 SEC 316 (1937); In the Matter of Sunset Gold Fields, Inc., 2 SEC 329 (1937); In the Matter of Rickard Ramore Gold Mines, Ltd., 2 SEC 377 (1937); In the Matter of Herman Hanson Oil Syndicate, 2 SEC 743 (1937); In the Matter of Oklahoma-Texas Trust, 2 SEC 765 (1937); In the Matter of Gold Dust Mining & Milling Company, 3 SEC 55 (1938); In the Matter of South Umpqua Mining Company, 3 SEC 224 (1938); In the Matter of Unity Gold Corporation, 3 SEC 618 (1938); In the Matter of Monitor Gold Mining Company, 4 SEC 347 (1939).

720 (1936). The fact that valuations are in the final analysis expression of judgment does not warrant a departure from these standards.[61]

In a number of cases the Commission has held appraisals of mining properties false and misleading on the ground that the assignment of tonnages and values to "possible ore" in such appraisals gave a misleading tangibility to a geological assumption.[62] The Commission has also repeatedly held appraisals of mining properties based on future returns misleading due to the fact that such future returns were not reduced to present value.[63]

The Commission also has criticized numerous other specific points in appraisals. In the Haddam Distillers Corporation case the buildings appraised were falsely described; the total floor area was materially overstated; water rights were included at a ridiculous figure determined without regard to the postulates of scientific methods; and many equipment items were included at "sound values" which exceeded retail selling prices of identical or improved equipment as at the date of the appraisal.[64] In this case the Commission said:

> Not only was the appraisal inexcusably careless but the testimony impels toward the view that there was a dishonest attempt to inflate values beyond any maximum that difference of opinion might condone.[65]

In the Continental Distillers and Importers Corporation case land was appraised at "sound value" without regard to the cost to the promoters, its assessed value for tax purposes, or the local real estate market; water rights were considered in determining value of land and also were included in the appraisal value

---

[61] In the Matter of Breeze Corporations, Inc., 3 SEC 709, 717 (1938).

[62] See In the Matter of Gilpin Eureka Consolidated Mines, Inc., 1 SEC 752, 756 (1936); In the Matter of Mining and Development Corporation, 1 SEC 786, 797 (1936); In the Matter of Livingston Mining Company, 2 SEC 141, 150 (1937); In the Matter of Emporia Gold Mines, Inc., 2 SEC 209, 219 (1937); In the Matter of Monitor Gold Mining Company, 4 SEC 347, 348, 349 (1939).

[63] See In the Matter of La Luz Mining Corporation, 1 SEC 217, 223 (1935); In the Matter of American Terminals and Transit Company, 1 SEC 701, 719 (1936); In the Matter of Mining and Development Corporation, 1 SEC 786, 797 (1936); In the Matter of Emporia Gold Mines, Inc., 2 SEC 209, 221 (1937); In the Matter of Sunset Gold Fields, Inc., 2 SEC 329, 331 (1937). For other criticisms of appraisals, see Paton "Economic Theory in Relation to Accounting Valuations," Acctg. Rev., VI (1931), 95; Paton, *Accountants' Handbook* (2d ed. 1934), 731; Paton and Stevenson, *Principles of Accounting* (1918), 506 *et seq.* (with particular reference to depreciation). Also see Brief of Federal Power Commission, Amicus Curiae, in Railroad Commission of the State of California *et al. v.* Pacific Gas and Electric Company 302 U.S. 388 (1938), pp. 24, 25:

"A classical example of the wide variations in determining fair value under the reproduction cost theory is contained in Footnote 7 of the dissenting opinion of Mr. Justice Stone in *West v. Chesapeake and Potomac Telephone Company*, 295 U.S. 662, p. 691. The footnote shows the following variations in results obtained by engineering appraisals of the telephone property as found in the record of the *New York Telephone Company v. Prendergast*, 36 Fed. (2nd) 54. (The summary is taken from the minority report of the Commission on Revision of the New York State Public Service Commission Law (1930) at page 266):

	Valuation	Increase Over the Commission Valuation
Majority of Commission	$366,915,493	—
Statutory Court	397,207,925	8.2%
Minority of Commission	405,502,993	10.5%
Master's report	518,109,584	41.2%
Company claim based on Whittemore appraisal	528,753,738	44.1%
Company claim based on Stone & Webster appraisal	615,000,000	67.1%

"There was in that case a possible error of almost two hundred and fifty million dollars. It must be evident that no group of men, no matter how well trained or informed, could by any process of reasoning come to any proper conclusion from the so-called evidences of value in that case. Only by arbitrary or capricious action could any finding of fair value be agreed upon by a group of men charged with that duty in that case and it is submitted that a method which is so inherently defective cannot qualify as a *sine qua non* of reasonableness in law.

"The experience cited above is not isolated or unique it is typical of the prevailing experience of all regulatory bodies which deal with 'fair value.' There is shown in Appendix "C" [of the brief] a comparison of estimates of reproduction cost arrived at in 123 rate cases reported for the years 1928 to 1933, inclusive. *The average variation is shown to be 51.50%.*"

[64] 1 SEC 37, 42 *et seq.* (1934).

[65] *Id.* at 46.

as a separate item at an amount patently excessive; and the appraisal included buildings and equipment destined for the junk heap.[66]

In the Breeze Corporations[67] case the valuation of patents was " . . . represented to be based upon the past history, present position and reasonable expectation of the registrant . . . " But "an examination of the estimates of gross sales in relation to the company's past and current recorded gross sales and a consideration of the additional factors which, according to the testimony entered into those estimates, show that they reflect less a 'reasonable expectation' than sheer optimism and hope."[68]

In most of these cases the appraisers, as previously explained, failed to follow accurately and fairly the norms upon which the appraisal was supposed to have been established. However, even if such norms are accurately and fairly followed, there remains the question as to whether it is proper to value assets on the basis of reproduction or replacement cost new for balance-sheet purposes.

Data appearing in a study by Fabricant on revaluations of fixed assets indicate that more than 50 per cent of the manufacturing and mining companies listed on the New York Stock Exchange revalued their assets during the period from 1925 to 1934.[69] The per cent of the aggregate write-ups and write-downs included in Fabricant's sample to the net book value of corresponding assets in 1934 were not large.[70] There were, however, individual instances in which write-ups and write-downs were material.[71]

---

[66] 1 SEC 54, 67 *et seq.* (1935). In a later case before the Commission an appraisal was also used after determination to junk property appraised. See In the Matter of American Terminals and Transit Company, 1 SEC 701, 721, 722 (1936).

[67] In the Matter of Breeze Corporations, Inc., 3 SEC 709, 719, 720 (1938).

[68] Other specific points in appraisals criticized by the Commission in stop-order opinions include the following: In the Matter of La Luz Mining Corporation, 1 SEC 217, 222 (1935), and In the Matter of Herman Hanson Oil Syndicate, 2 SEC 743, 746 (1937) (the location and value of mineral veins and oil, respectively, were determined by examinations made with "doodlebugs"). In the Matter of American Terminals and Transit Company 1 SEC 701, 728 (1936) (the valuation of coal lands was based on comparison with sales prices of nearby coal lands, but such sales prices were enhanced by specialized factors of location and an unusually high price level at the time of sales); In the Matter of Gilpin Eureka Consolidated Mines, Inc., 1 SEC 752, 758 (1936) (mine workings under water and partly caved at the surface were appraised at reproduction cost new); In the Matter of Mining and Development Corporation, 1 SEC 786, 797 (1936) (a mining engineer's operating report was improperly used as an appraisal); In the Matter of Consolidated Mines Syndicate, 2 SEC 316, 322 (1937) (property was written up on the ground that its value had been increased by the driving of a tunnel, although the registrant knew nothing more about the existence of ore bodies than before the tunnel was driven); In the Matter of Unity Gold Corporation, Securities Act of 1933 Release No. 1776, p. 12 (1938) (deferred development expense of a promotional enterprise having no blocked out ore was written up on the strength of an appraisal based on reproduction cost new); In the Matter of Monitor Gold Mining Company, Securities Act of 1933 Release No. 1874, p. 2 (1939) (in computing the present value on future returns for appraisal purposes too low a risk rate was used); In the Matter of Petersen Engine Co., Inc., 2 SEC 893, 907 (1937) (a purely arbitrary figure representing the appraiser's guess was assigned as the value of certain patents); In the Matter of Livingston Mining Company, 2 SEC 141, 153 (1937) (the appraisal involved was characterized by the Commission as " . . . made to order for promoters by one who knew what figure the promoters wanted).

[69] See note 53 *supra*. While Fabricant's study does not cover the point it is probable that many of the write-ups included in such revaluations were made in conjunction with the distribution of new securities.

[70] *Op. cit. supra* note 53 at 3.

[71] *Op. cit. supra* note 53 at 4. Twelve companies, or 8% of the sample, reported write-ups in property, plant and equipment accounts during the years 1925–1934 of 20% or more of the corresponding assets in 1934. Forty-five companies or 29% of the sample reported write-downs in property, plant and equipment accounts during the years 1925–1934 of 20% or more of the corresponding assets in 1934. For illustrations of the substantial write-ups made by numerous companies having securities listed on national securities exchanges see the stockholders reports of Gimbel Brothers, Inc. (1924); Northern States Power Company (1924, 1926); General Baking Corporation (1925); W. F. Hall Printing Company (1926, 1931); Best & Company, Inc. (1927); McClanahan Oil Company (1934–1935). For corresponding illustrations of write-downs see stockholders reports of: Libby-Owens-Ford Glass Company (1931); General Baking Company (1932); United Fruit Company (1932); Armour and Company (Illinois) (1934); Borden Company (1935). In 1917 the properties and securities of Pure Oil Company were written up \$37,357,027.31 to adjust the accounts to appraisal values. This write-up represented 61% of the tangible net worth of the company at March 31, 1917. Fifteen

Since the Securities Act of 1933 became effective numerous promotional enterprises have revalued their assets in connection with efforts to distribute securities to the public.[72] A like tendency does not exist among seasoned companies. This probably may be attributed to the fact that price levels since 1933 have been generally lower than in the decade preceding the adoption of the Securities Act. However, in view of the fact that many listed companies wrote up fixed assets in the 1920's and in view of the experience in the public-utility field[73] it is possible that an increasing price level in the future may bring with it a wave of write-ups in older companies as well as among promotional concerns; and among listed as well as among unlisted companies. In view of this possibility, the requirements of the Securities and Exchange Commission as to the bases upon which fixed assets may be reported in financial statements present an interesting problem.

It is provided in Item 25 of Schedule A of the Securities Act of 1933 that the registration statement shall contain:

> A balance sheet as of a date not more than ninety days prior to the date of the filing of the registration statement showing all of the assets of the issuer, the nature and cost thereof, whenever determinable, in such detail and in such form as the Commission shall prescribe. . . .[74]

The basic registration forms[75] finally adopted do not require registrants to state their property accounts at cost in balance sheets filed in connection with registration statements. Instead, registrants are permitted to state fixed assets "as per accounts" and are required to submit a schedule of fixed assets setting forth the balances at the beginning of the period of report, the additions at cost, and retirements or deductions during the period, other changes, and the balances at the end of the period, which in total equal the amount shown in the balance sheet.

---

years later the company eliminated surplus arising from revaluation of assets from its accounts by a reduction in assets of the same amount. In the interim the company raised $86,300,000 in seven separate public offerings of securities. The write-up offered financial justification of the issuance of these securities. Winthrop, *Are You a Stockholder?* (1937), 194, 195.

[72] See Notes 58, 59, 60 *supra* for a collection of stop-order cases under the Securities Act of 1933 in which property valuations were involved. In some of the cases cited the write-ups were substantial. Also see SEC, *Third Annual Report* (1937), 4, 5; SEC, *Fifth Annual Report* (1939), 25.

[73] *Fed. Trade Comm. Report on the Economic, Financial and Corporate Phases of Holding and Operating Companies of Electric and Gas Utilities, Sen. Doc. No. 92*, Pt. 72-A, 70th Cong., 1st Sess. (1934) 299; "It was found that the ledger values for the capital assets of the holding and operating companies include a considerable amount by which they were written up in value in one way or another. It was determined that the amount by which the capital assets of all the companies examined were written up in value over cost exceeded 1.4 billion dollars. Of this amount, $273,420,165 was included in the 18 top holding companies, $309,495,058 was included in the 42 sub-holding companies and $599,329,206 was included in the 91 operating companies and additional amounts of $43,874,977 and $264,904,417, respectively, were disclosed in other sub-holding and operating companies principally in connection with the examination of the holding companies. The amounts by which the capital assets of the 18 top holding, 42 sub-holding, and 91 operating companies were written up are equivalent to 9.6%, 16.5%, and 22.1%, respectively, of the capital assets of those companies, excluding the write-ups, at the final dates of their examination. Obviously these percentages would be larger if the write-ups were related to the capital assets at the time the write-ups occurred because of the increase in assets during the interval; and not all of the companies examined revealed write-ups so that the percentages would be still larger if the write-ups were related only to those companies whose assets were written up in value."

The write-ups referred to are on an unconsolidated basis and represent, *inter alia*, profits taken by affiliated companies for construction work performed; discount on capital stock and bonds, and excessive amounts for overhead expenses and intangibles, erroneously included as an element of construction cost; intercompany profits arising from transfers of properties from one company to another within the same group at increased amounts; changes in property valuations made in connection with mergers or consolidations of two or more companies; and property revaluations based upon appraisals by affiliated interests or by independent appraisers.

[74] 48 *Stat.* 88, 91 (1933), 15 U.S.C. §77 aa (1934). Section 12(b), (1), (I) of the Securities Exchange Act of 1934 requires that an application for registration of securities on a national securities exchange shall contain a balance sheet, but it does not specify that balance sheets filed pursuant thereto shall show ". . . all of the assets of the issuer, the nature and cost thereof, whenever determinable. . . . " 48 *Stat.* 892, 15 U.S.C. §78 (1) (1934)

[75] Form A-2 promulgated under the Securities Act of 1933 and Forms 10 and 10-K promulgated under the Securities Exchange Act of 1934.

The foregoing requirements apparently were adopted for the reason that it was felt that it would be impossible, at least without unreasonable effort and expense, for most registrants to determine the historical cost of fixed assets, particularly in the case of properties that had been in service for many years, had been revalued in the past, and were carried in the accounts at the time of registration on some basis other than historical cost.[76]

To complement the financial statements, however, supplemental information was required as to major revaluations which have been made recently enough to be ordinarily of current significance.[77]

The Commission's forms serve their intended purpose in that they do not impose a hardship upon registrants by requiring adherence to historical cost where historical cost was abandoned many years ago; but if fixed assets have, within the near past, been stated on any basis other than historical cost, the resulting increases or decreases will be disclosed.

Notwithstanding the impracticability of requiring disclosure of the historical cost of property owned by companies long in existence, it appears feasible to place certain restrictions upon (1) the representations that may be made by promotional companies regarding property valuations and (2) upon revaluations of property by seasoned companies, subsequent to some selected date. Limitation in this respect may be justified on the grounds that under certain circumstances it is misleading to reflect fixed assets in financial statements at appraisal values.[78]

If fixed assets are stated in the balance sheet at appraisal values higher than historical cost, it is in effect a representation that the valuation is justified by the earning power of the company, i.e., by its ability to operate profitably after absorbing charges for depreciation, depletion or amortization based on the appraisal value of fixed assets; and that the appraisal value of the fixed assets is expected to be recovered over a period of years through charges against earnings for depreciation, depletion, or amortization. It may therefore be said to be misleading to state fixed assets in the balance sheet at replacement or reproduction cost if it cannot be demonstrated that the property is worth that amount to the enterprise, i.e., if the valuation of fixed assets at replacement or reproduction cost is not justified by the earning power of the company.

When tangible reproducible properties are appraised, replacement or reproduction cost is the basis of valuation most frequently adopted. This basis, however, is not necessarily a proper measure of the value of property to an enterprise as a going concern; it merely sets the maximum limit of an appraisal in that the value of property should not be stated higher than the cost of obtaining equally desirable substitute property. The price a willing buyer would pay to acquire a substitute property would be limited by the benefits he expected to derive from the use of such

[76] Sanders "Accounting Aspects of the Securities Act," *Duke Law and Contemporary Problems*, IV (1937), 195 *et seq.*

[77] In Form A-2, Item 45(a) the following historical financial information is required to supplement the data set forth in the balance sheet with respect to fixed assets:

"If, since January 1, 1922, there have been any increases or decreases in *Investments*, in *Property, Plant*, and *Equipment*, or in *Intangible Assets*, resulting from substantially revaluing such assets, state:
(i) In what year or years such revaluations were made.
(ii) The amounts of such write-ups or write-downs, and the accounts affected, including the contra entry or entries.
(iii) If in connection with such revaluations any adjustments were made in related reserve accounts, state the accounts and amounts with explanations."

Under the 1934 Act the date was January 1, 1925. See Form 10, Item 34(a).

[78] This argument rests upon the consideration that appraisals may be based upon the application of certain methods or norms which are not appropriate under certain circumstances, and the resulting appraisals are of themselves misleading. This is entirely aside from the point that the use of appraisals is not in accord with the fundamental purpose of accounting—profit determination.

property, i.e., the capitalized earning power.[79] Accordingly, the appraisal value of property should not exceed the lower of depreciated replacement or reproduction cost, or capitalized earning power of such property.[80]

Acceptance of this principle leads to the following conclusions:

1. A corporation that has not been in business long enough to demonstrate its earning power is neither justified in representing that its assets are of greater value in carrying on its operations than the amount that the company or its promoters paid for such assets in an arm's-length transaction; nor in representing that property acquired shortly prior to the date of such representations has appreciated in value in the brief intervening period. Consequently, fixed assets should not be included in balance sheets of promotional enterprises at amounts represented to be "the value of these assets to a going concern," "the value for use by a going concern having prospects for the profitable use of the property appraised," "present value," or at any amount other than actual cost to the company or its promoters. This conclusion may be subject to exceptions in certain unusual cases, e.g., a case in which a promoter acquires property, holds it for a period of years, develops it, demonstrates a discovered increment in its value, and then organizes a corporation to acquire it from him.
2. Similarly, a corporation, long established, is neither justified in representing that recently acquired property is of greater value to it in carrying on its operations than the cost of such property in an arm's-length transaction, inasmuch as the earning power of the specific assets, or additional facilities, has not been demonstrated; nor in representing that such property has appreciated in value in the brief period intervening since its acquisition. Consequently, recently acquired fixed assets should not be included in balance sheets at amounts other than actual cost regardless of the length of time the corporation has been in business.
3. A corporation is not justified in representing that the value of its assets is in excess of cost, regardless of the length of time it has been in business or when it acquired its assets, if the enterprise, on the basis of its past record is unable to operate profitably after absorbing charges for depreciation, depletion, or amortization based on the appraisal value of such assets.

The principles set forth above with respect to promotional enterprises have been substantially followed by the Securities and Exchange Commission. In an Accounting Series Release it stated:

> In connection with a registration statement, an industrial company in its promotional stages with no record of business or earning capacity, filed a balance sheet in which Property, Plant and Equipment, acquired an in arm's-length transaction at a cost of $200,000 was carred at $720,-042.81 which represented its "sound value" derived from an independent appraisal of the esti-

[79] For a discussion of the importance of earning power from the investors' viewpoint see address of Jerome N. Frank, Chairman of the SEC, entitled "Accounting for Investors" delivered before the Controllers Institute of America on October 10, 1939 at p. 5 *et seq.*

[80] 1 Bonbright, *Valuation of Property*, (1937), 156, *et seq.* The term "capitalized earning power" has been used rather than the term "capitalized anticipated income" used by Bonbright because it is believed that such valuations ordinarily should be based upon demonstrated earning power or realized earnings rather than on prophecies of future earnings. It is true the value of an item of wealth theoretically is measured by the future benefits the owner expects to derive from its use. However, as a practical proposition, reported realized earnings perhaps adjusted to give recognition to known or reasonably probable changes are more reliable than mere prophecies as an indication of future earnings. *Cf.* In the Matter of Breeze Corporations, Inc., 3 SEC 709, 720 *et seq.* (1938). Bonbright recognizes this distinction, *id.* at 229, 265.

mated "replacement value new less (observed) depreciation." Thus the balance sheet figure exceeded cost by $520,042.81, which excess was carried as "surplus arising from revaluation of property."

In the appraisal report filed, the term "sound value" was qualified by the appraiser as being "The value for use by a going concern having prospects for the profitable use, at normal plant capacity, of the properties appraised."

The registrant was required to amend its balance sheet to eliminate the surplus and to show the fixed assets at cost.[81]

More recently the philosophy underlying this release has been followed by the Commission in its stop-order opinions.[82]

Because of the difficulties encountered in portraying the financial condition of promotional enterprises[83] it might be advisable to eliminate the requirement of a formal balance sheet and in lieu thereof to require that the financial condition of the registrant be shown in a textual or tabular statement. Requirements of this order are prescribed in Form A-O-1, for the registration of securities of corporations organized within two years to engage in the exploitation of mineral deposits (other than oil or gas). By eliminating the requirement of a formal balance sheet this form obviates the necessity of placing a value on assets received for stock and removes the temptation to write up assets from historical cost, or cost to promoters, to higher appraisal values. It has been suggested that similar forms might be prescribed for the registration of securities of other types[84] of promotional enterprises that have acquired property in exchange for securities.[85]

If a corporation has been established for a number of years and, in view of its past operations, apparently is able to operate profitably after absorbing charges for depreciation, depletion or amortization based on the appraisal value of its assets, it may be justified from an economic viewpoint in stating such assets at replacement

[81] SEC Accounting Series Release No. 8 (May 20, 1938).

[82] See In the Matter of Unity Gold Corporation, 3 SEC 631 *et seq.* (1938); *Cf.* In the Matter of Breeze Corporations, Inc. 3 SEC 709, 719 *et. seq.* (1938). Also see SEC, *Third Annual Report* (1937), 4, 5; SEC, *Fifth Annual Report* (1939), 25.

[83] When property is acquired by a promotional enterprise in an arm's-length transaction at an agreed price payable in cash the actual cost of the property is known and it should be included in the balance sheet on that basis. However, when property is acquired in exchange for the registrant's own securities, cost to the registrant in terms of dollars is unknown and, if formal balance sheets are required, a value must be placed on such property by the board of directors or the stockholders. In cases of this sort the assets acquired are ordinarily valued upon one of the following bases:

1. Replacement or reproduction cost as determined by an independent appraisal.
2. An arbitrary amount determined by the board of directors or the stockholders.
3. An amount equal to the par or stated value of the capital stock issued in exchange therefor.
4. An amount equal to the market value of the capital stock issued in exchange therefor.
5. A nominal amount.

None of these bases are wholly satisfactory. The objections to replacement cost as a basis have been given. Methods two and five are clearly arbitrary. Method three ordinarily represents circular reasoning. Method four may represent an approximation to cost if in fact there is an independent and established market for the securities being issued. Smith, "Balance-Sheets of Promotional Enterprises," *J. of Accty.*, LX (1935), 199.

[84] For other types of promotional enterprises it is customary to require disclosure in balance sheets filed in connection with Form A-1 under the Securities Act of 1933 of data regarding: The number of units and the par, face or stated value of the securities issued or to be issued for the property; the valuation at which such property was or is to be received by the registrant; the principle of valuation used in arriving at such valuation; the names of the person making the valuation; the relationship of such persons to the registrant; its predecessors, or promoters; the cost to persons having a material relationship to the registrant, its predecessors or promoters of property acquired from such persons. In addition, if the valuation has been determined by the incorporators, board of directors, or stockholders, or if it represents the par, face, stated or market value of the securities issued or to be issued for the property, disclosure is required as to whether such valuation is arbitrary, or whether it is proven. These requirements are enumerated by Werntz, Chief Accountant of the SEC in an address, "Financial Statements for Investors," *J. of Accty.*, LXIX (1940), 25, delivered before the Ohio Society of Certified Public Accountants on September 7, 1939. Not only is such data required in substance by instructions as to financial statements (Form A-1, page 29, instruction 1), but it is deemed necessary in order to make the financial statements not misleading. *Cf.* In the Matter of Continental Distillers and Importers Corporation, 1 SEC 54, 78 (1935); In the Matter of Rickard Ramore Gold Mines, Ltd., 2 SEC 377, 389, 390 (1937) In the Matter of Platoro Gold Mines, Inc. 3 SEC 872, 881 (1938). Information somewhat similar to that mentioned above is also called for by Items No. 40 to 45, inclusive, of Form A-1. *Cf.* Item No. 12 of Form A-O-1.

[85] Werntz, *op. cit. supra* note 84 at 25.

or reproduction cost, less accumulated depreciation, as determined by independent appraisal. Nevertheless, it is preferable from an accounting viewpoint to include fixed assets in balance sheets at historical cost.[86] In view of this fact accountants should consider the feasibility of limiting the use of appraisals in balance sheets of established companies as well as in statements of promotional enterprises. This objective could be achieved without requiring corporations to undergo the hardship of determining the historical cost of their older assets still in use, by the simple expedient of forbidding write-ups and write-downs after some specified date. The American Accounting Association[87] urges the general adoption of this idea as a means of bringing financial statements as a whole into conformity with fundamental accounting theory.

The adoption of this solution, either as a requirement of a governmental agency or as a "generally accepted accounting practice," is subject to certain objections, which will be considered briefly.

It must be emphasized that the proposed solution does not contemplate the complete elimination of data regarding appraisal values from financial statements. It is only proposed that such write-ups and write-downs as may be made, after some specified date, to adjust property accounts to bases other than historical cost, should not be reflected in published financial statements. Appraisals, based on historical cost, for the purpose of reconciling property accounts with the extent, character, and present existence of the property details may be desirable in many instances. An appraisal of this type is in effect no more than an inventory of property at cost, usually accompanied by a survey of accrued depreciation. The reflection of such appraisals in financial statements is not objectionable. Similarly appraisals on bases other than historical cost may be desirable in certain cases as a matter of supplemental information and disclosure of such data should be permitted in parenthetical or collateral notations to the financial statements.

A recently observed method[88] of setting forth a discovered increment in mineral deposits as supplemental data to a balance sheet based on cost, recommends itself. The assets and the equities of the company are stated on the basis of cost and capital contributions plus accumulated earnings, respectively. The totals of these items are described as "total assets at cost" and "total liabilities and capital." To these totals are added "discovered increment at appraised value" and "discovered increment surplus." In this manner two balance sheets are presented in one. It is a complete balance sheet based on historical cost and at the same time it is a balance sheet adjusted by supplemental data to disclose appreciation of property values. In computing profits depletion on cost of mining properties is charged currently to operations. Depletion of discovered increment is also disclosed.

The Company's financial statements showing its condition and earnings based

[86] It is appreciated that courts have recognized reproduction cost as a factor in determining value of plant properties for the purpose of establishing rates of public utilities. Such companies may be justified from an economic viewpoint in showing fixed assets at reproduction cost on their balance sheets, since they have monopolies and their rates are prescribed by regulatory bodies with a view to enabling them to earn a fair return on the value assigned to their assets. Yet from an accounting viewpoint, it would be preferable for such companies to include fixed assets in their balance sheets at historical cost. Also see note 42 *supra*.

[87] *Op. cit. supra* note 16 at 189: "Many enterprises have no records that would permit an accurate determination of the original cost of their older assets still in use. The application of these principles [see page 3 *supra*] might have to date from a selected point of time rather than cover all past transactions. Consistent application of these principles over a period of years would eventually yield accounting statements in which the asset values would derive from the single basic postulate of cost, original or unamortized, rather than reflect uncertain and inconsistent financial policies."

[88] See *Climax Molybdenum Company, Annual Report to Stockholders*, December 31, 1938.

on cost, supplemented by data regarding the discovered increment in its property are undoubtedly more informative as to the value of its securities than would be a balance sheet based primarily on appraisal values and a statement of earnings after providing for depletion charges based on appraisal values. Moreover, the method followed in disclosing the supplemental data is more informative than disclosure by footnote would be. This method can be applied in cases in which appreciation arises from changes in price levels or reproduction cost, and from bargain purchases, as well as from discoveries.

Defining or describing write-ups presents a particularly difficult problem. In general write-ups may be effected in the following ways:[89]

1. Adjustments are made to increase the amounts at which properties are carried on the books to higher amounts based upon an independent appraisal, management appraisal, or arbitrary valuation.
2. Property is acquired from one or more affiliated companies by purchase, merger, consolidation or otherwise, at an amount in excess of its cost to the group.
3. Property is acquired from one or more unaffiliated predecessors by merger, consolidation or other succession at an amount in excess of its cost to the predecessor, companies, and without a substantial change in beneficial ownership.[90]
4. Property is acquired from a promoter at an amount in excess of its cost to the promoter.[91]

Any practice adopted should be broad enough to forbid each of these types of write-ups. However, it must be recognized that property transfers between affiliated companies at amounts in excess of depreciated or unamortized cost do not represent merely an intercompany profit to senior securities of the transferor held outside of the group or to the minority interest in the common stock of the transferor. This factor may require modification of any practice that would prevent transfers of property between affiliated companies at stepped-up amounts, except in simple situations in which there are no security interests in the transferor outside of the group. A correlative situation possibly requiring adaption of any practice adopted may exist with respect to an acquiring company in which senior securities or a minority interest in the common stock of the acquiring company is held outside the group. In addition, care should be taken not to prevent corporations from reporting assets at the amounts at which they were acquired in situations similar to those enumerated above in item 3, but in which there has been a substantial change in beneficial ownership.[92] In such a situation cost may be measured by the cash outlay of the acquiring company or by the fair market value of property acquired in exchange for securities.[93]

Defining or describing write-downs also presents a difficult problem. The comments in this note apply only to write-downs to reflect changes in price levels. It is not intended to suggest that write-

[89] See note 73 *supra*. Write-ups may also be effected by (1) erroneously including discount on capital stocks and bonds and excessive amounts for overhead expenses and intangibles as an element of construction costs, (2) failing to remove from the property accounts assets retired from service, and (3) erroneously charging repairs and maintenance to fixed property accounts. These methods of inflating property accounts are not dealt with in this paper since they clearly violate accepted accounting principles.

[90] If the vendor is not a predecessor or if there is a substantial change in beneficial ownership, any increase in property valuation should be and for purposes of this discussion is deemed to be the result of an arm's-length bargain rather than a write-up.

[91] Property acquired from a promoter, a predecessor, or in a consolidation or merger usually is acquired in exchange for securities.

[92] In the merger or consolidation of unaffiliated companies there should ordinarily be an arm's-length bargain resulting in a substantial change in the equities of the common stock of the merged companies.

[93] The Executive Committee of the American Accounting Association, *op. cit. supra* note 16 at 187, 188.

downs to reflect property abandonments, correction of prior years' depreciation charges, and physical and economic obsolescence should not be allowed. Properties are frequently written down in connection with reorganizations by legal proceedings[94] and "quasi" or accounting reorganizations.[95] The latter type of readjustment involves *inter alia* the absorption of an operating deficit in capital surplus and the accumulation of undistributed earnings thereafter in a "dated" earned-surplus account. In the Matter of Associated Gas and Electric Corporation[96] it was held that under certain circumstances an adjustment of assets also is a necessary element of an accounting reorganization.

Fixed-asset accounts should not be adjusted through legal proceedings or by means of accounting reorganizations to give effect to "the ordinary changes in price levels commonly experienced from one generation to another." This view should not be difficult to reconcile with the position taken in the Associated Gas and Electric Corporation case, since it is probable that in most cases in which reorganizations of this nature are necessary write-downs will be required to eliminate previous write-ups, or to reflect physical or economic obsolescence in the accounts.[97]

Practices permitted under state incorporation laws would present an additional problem in applying the proposed solution. In several states stock dividends and even cash dividends may be charged against revaluation surplus.[98] If the assets of an enterprise have appreciated, if the appreciation has actually been recognized by a write-up in its accounts, and if under the laws of the state of its incorporation, surplus arising from such appreciation is

[94] See the following Advisory Reports of the Securities and Exchange Commission on Proposed Plans of Reorganization under Chapter X of the Chandler Act: In the Matter of Detroit International Bridge Company SEC Corporate Reorganization Release 9 (Mar. 24, 1939), p. 5; In the Matter of National Radiator Corporation, SEC Corporate Reorganization Release 10 (Mar. 25, 1939), pp. 5, 6, 7; In the Matter of the Griess-Pfleger Tanning Company, SEC Corporate Reorganization Release 13 (June 16, 1939), p. 5 *et. seq.;* In the Matter of La France Industries, SEC Corporate Reorganization Release 16 (Sept. 1, 1939), p. 11.

[95] In the Matter of Associated Gas and Electric Corporation, SEC Holding Company Act Release 1873 (Jan. 10, 1940), p. 13 *et. seq.*, In the Matter of Philadelphia Company, SEC Holding Company Act Release 1905 (Jan. 30, 1940), p. 12 *et. seq.*

[96] SEC Holding Company Act Release 1873 (Jan. 10, 1940), pp. 14, 15:

"An accounting reorganization permits a corporation to begin anew the accumulation of earned surplus. It, therefore, enables a company to pay dividends even though the total operations of the enterprise have resulted in an earned surplus deficit, such dividends ostensibly being paid out of earnings rather than contributed capital. It can be justified only if it accomplishes with respect to the accounts substantially what might be accomplished in a reorganization by legal proceedings—namely, the restatement of assets in terms of present conditions, corresponding modification of capital and capital surplus, and commencement of a new earned surplus account as of the date of the reorganization. In short the enterprise must be put on substantially the same accounting basis as a new enterprise. And because the primary excuse for the device is that it accomplishes expeditiously what might otherwise have to be accomplished by legal proceedings, clear disclosure of the transactions should be made, and appropriate consents should be secured.

. . .

"We must reject the proposition that an adjustment of assets is not a necessary element of an accounting reorganization. . . . A breach in the continuity of the surplus accounts cannot be permitted to become a recurrent thing. Where the continuity of the surplus accounts is interrupted by an 'accounting reorganization,' that reorganization must be reasonably complete so as to obviate, so far as possible, the necessity of future reorganizations of like nature."

Also see American Institute of Accountants, *Accounting Research Bulletin 3* (1939), p. 26.

[97] In such cases write-downs are usually made not because of changes in price levels, but because the earnings of the enterprise will not support the valuations at which its property is carried, or its capital structure, e.g., see In the Matter of Philadelphia Company, SEC Holding Company Act Release 1905 (Jan. 30, 1940), p. 12 *et. seq.* Also see Advisory Reports of the Securities and Exchange Commission on Proposed Plans of Reorganization under Chapter X of the Chandler Act, cited in note 94 *supra*. In its report In the Matter of La France Industries the Commission, in referring to a valuation founded upon an appraisal said:

"This appraisal, however, was based upon reproduction cost new less depreciation. It is well recognized that this method of valuation is not a proper guide to the value of a going concern for reorganization purposes in the absence of a showing that the assets may be employed in the conduct of the enterprise so as to yield a fair return, after depreciation, upon the values so assigned. The view generally accepted both by authorities in the field of finance and by the courts is that for the purpose of reorganization, the reasonably prospective earnings of an enterprise constitute the proper standard of measurement of its value as a going concern."

[98] See note 36 *supra*.

available for dividends, financial statements that do not disclose that fact might be misleading to investors. In terms of "accepted principles of accounting" financial statements, particularly profit-and-loss computations, would be misleading if based on appraisal values. Yet they also would be misleading if a write-up actually made on the company's books is not disclosed. On the one hand there would be a violation of an accounting principle. On the other hand the write-up would be an accomplished legal fact and to fail to give appropriate recognition to it in the financial statements would be to conceal that fact and the effects that might flow from it.[99] In particular cases in which this problem is encountered it may be met by requiring the financial statements to be in accord with sound accounting principles and to require in addition that the accomplished legal fact be disclosed as collateral information.[100]

This conflict between legal and accounting principles is not encountered only in cases involving write-ups. It is frequently met in cases pertaining to the capital stock and surplus accounts. Illustrations of the problem may be found in cases having to do with (1) quasi-reorganizations,[101] (2) the treatment of dividends paid as a charge against capital surplus when earned surplus was available,[102] and (3) liquidating value of capital stock.[103] Many points of conflict could be eliminated by stating the capital-stock and surplus accounts on the balance sheet as one item, termed excess of assets over liabilities. This item should be supported by a schedule setting forth (1) an analysis of capital contributions and undistributed earnings in accordance with sound accounting principles and (2) an analysis of legal stated capital and surplus legally available for various types of dividends. From this point it would be only one more step to revise balance-sheet presentation to indicate clearly that all assets other than current assets and investments are in effect no more than unamortized costs carried as deferred charges against future operations. Such a revision would do much toward making financial statements intelligible to the general public. However for present purposes it is enough to point out that any objection to the suggested solution on the ground that it would fail to reflect the legal fact may be overcome by disclosure in a footnote of any write-up reflected on the books, but excluded from the financial statements.[104]

---

[99] Werntz, *op. cit. supra* note 84 at 28.

[100] *Ibid.*

[101] *Ibid.*

[102] *Ibid.*

[103] *Id.* at 27; SEC Accounting Series Release 9 (1938).

[104] The Executive Committee of the American Accounting Association *op. cit. supra* note 16 at 191:

"The application of satisfactory accounting principles to paid-in capital and surplus is handicapped in some degree by conflicting provisions of corporate laws. It is not necessary, however, to adopt in accounting practice the expedients permitted under any given law. The principles suggested above represent at most some restriction of procedures which may have been legalized but which plainly are not in accord with good accounting and finance."

The Securities and Exchange Commission has expressed a somewhat similar view. In the Matter of Unity Gold Corporation, 1 SEC 25, 33 (1934), the Commission held that the value of capital stocks issued for property and concurrently "donated back" to the issuer was improperly included in the cost of the property even though the effect of such a transaction under the applicable state law was to render such shares "fully paid and non-assessable." In its opinion the Commission said:

"With the question of whether or not stock reacquired under these circumstances is true treasury stock and hence to be regarded as fully paid and non-assessable, this Commission in this case has no concern; but under the standards of truthfulness demanded by the Securities Act, such an entry cannot be regarded as otherwise than untrue and misleading."

In the Matter of Brandy-Wine Brewing Company, 1 SEC 123, 135 (1935), the Commission said:

"Statutory provisions in the state of incorporation making values fixed by directors conclusive for certain purposes in the absence of fraud, cannot foreclose this Commission's inquiry as to the truthfulness of a statement that a corporation has received services of a certain value, reasonably determined, nor prevent such a statement from being tested for truth under the standards set by the Securities Act."

Cf. In the Matter of Alleghany Corporation, SEC Securities Exchange Act Release No. 2423 (Mar. 1, 1940), p. 4. Referring to charges to paid-in surplus representing losses on sale of investments the Commission said: " . . . although the charges to paid-in surplus were authorized by Alleghany's charter, such a provision does not justify a departure from sound accounting."

TEACHING LOAD OF ACCOUNTING INSTRUCTORS

ASA S. KNOWLES *and* WILLIAM C. WHITE

COLLEGE teachers and administrators everywhere are very sensitive to real or imaginary inequalities in their teaching loads. Among them probably none is more justified in expressing concern over this matter than the teacher of Accounting. He is keenly aware that his elementary courses are the backbone of most business administration programs, while the advanced offerings in his field are perhaps more truly professional than any other single group of business college courses. Then, too, he knows all too well that the college accounting student is expected to possess both craftsmanship and a professional consciousness which may eventually assist materially in qualifying him for a professional license (C.P.A.) if this becomes necessary. From both the teaching and administrative viewpoints, therefore, it is of great importance that accounting teachers be given a teaching schedule that will enable them to accomplish their tasks as effectively as possible.

The almost universal practice is to measure faculty loads in terms of the semester hour, or, a modification of the student credit hour in combination with clock hours for the non-teaching load (if this is considered). This technic can never be a satisfactory over-all measure for every course. Each varies in content, objectives, groups to whom offered, type of presentation, etc., and all of these in turn make a great difference in what is required of a teacher. Most teachers of Accounting readily appreciate the difference in demands imposed upon them by the various courses in the accounting fields, and that the time required for student consultations and correction, as well as the degree of motivation of interest, etc., tend to decrease as the student progresses in his course program. It is generally recognized, for example, that the teacher of Accounting Principles must stimulate interest in the subject as well as impart information, while the teacher of Auditing can largely overlook the problem of motivation and proceed to perfect his presentation.

In search of a successful method of teacher load evaluation for Accounting and other subjects, the writers first reviewed the literature in the field and then turned to an examination of industry's technics for applying scientific methods to problems of personnel. The application of the industries' experience in this respect to the problems of educational personnel administration was tested in a carefully planned project on "The Evaluation of Teaching Loads in Institutions of Higher Learning." Just as workers in industry are selected upon the basis of job requirements revealed by job analyses,[1] it is believed that the effective program desired by educational administrators can be approached only when colleges and universities know the minimum requirements of faculty jobs. This opinion has been supported by 228 educators, representing over 200 leading colleges and universities in the United States and Canada, who collaborated in furnishing information on the demands imposed upon teachers by courses carefully defined with respect to objectives, course materials, content, and operating plan, including the arrangement

[1] Knowles and White: "Evaluation of Faculty Loads in Institutions of Higher Learning," *Journal of Engineering Education*, June 1939.

of lecture and quiz sections, number and types of students enrolled, home work required, teaching technics used, and other details affecting their conduct.[2]

The general findings of this study are of interest to members of the teaching profession since they both challenge the accepted practices of teaching loads and also point the way to feasible improvements. Of singular interest to the accounting teachers, however, is the information reported by members of their profession who were asked to appraise the load imposed on the teacher by a course[3] in Accounting as taught to engineers.

The general conclusions may be summarized briefly as follows:

(1) The semester hour or student hour credit is not a reliable measure of the time required to teach any course successfully. Heretofore, educational administrators have commonly evaluated course time requirements on the basis of three clock hours for each semester hour (one hour in class, two in preparation, correction, student conferences, etc.). The results of the study previously mentioned reveal these time requirements to vary from 2.9 to 1 to 5.5 to 1. For example, 25 English teachers agree that an experienced English instructor assigned 15 hours of teaching freshman composition (15 semester hours) has a total work load of $64\frac{1}{2}$ clock hours, whereas, 19 teachers of Accounting agree that the teacher of 15 hours of Industrial Accounting (9 semester hours) would need to devote 35.5 clock hours to this assignment.

(2) One hour of lecture load is not equivalent to $1\frac{1}{2}$ hours of recitation or to 3 hours of laboratory work in all subjects. The ratio of these to one another will vary greatly with course objectives, number of students concerned, arrangements for correction, conference, etc.

(3) Moreover, the time demands for preparation and student consultations will vary directly with the number of sections and, therefore, should be taken into consideration in computing an instructor's load. Teachers of Accounting agree that one section of the Industrial Accounting course as defined requires $15\frac{1}{2}$ hours per week, whereas 3 sections of this same course, requiring no more preparation and student consultation, would demand only $35\frac{1}{2}$ hours of an instructor's time; the sections have increased threefold, but the ratio of the time required of an instructor as to class hours has increased only 2.29 to 1 (as revealed by data presented in Table 1).

(4) Finally it is agreed by all that a teacher handling a course for the first time has a much greater burden than an experienced teacher (see Table 1, page 168).

The complete data with respect to load evaluation requirements of the Accounting course defined for purposes of this study are shown in Tables 1 and 2, pages 168 and 169. In requesting this information, the authors sought the considered judgment of teachers in institutions other than their own. To apply these principles to any given course program, however, college administrators should seek data from their own faculties through the medium of the questionnaire. Furthermore, those who are to coöperate in furnishing this information should include not only those now teaching the course, but also all others competent to evaluate it. Both administrators and teachers should be included because their approaches will naturally be different and may reveal factors that otherwise will be overlooked, while together they will derive a keen appreciation of each other's problems.

Tables 1 and 2 show in detail the in-

[2] Contributors were instructed to think only in terms of the specific course defined and to state their expert opinions of what the particular course would require of any teacher who wished to teach it successfully.

[3] See Table 1 for definition.

TABLE I

TEACHING LOAD IMPOSED BY COURSE IN INDUSTRIAL ACCOUNTING

A. Objectives of the Course: To teach the foundation and principles of accounting to Industrial Engineering students preparatory to a course in cost accounting.

B. Course Materials and Content: Course materials comprise a standard text on accounting principles for engineers supplemented with special problems issued by the instructor.

Accounts and their classification	Accounting for depreciation	Cost of production and cost of goods sold
Principles of debit and credit	Reserves and funds	The factory ledger system
Recording plant transactions; books of original entry	Construction of financial statements	"Capital" vs. revenue expenditures
Ledger operations	Closing the operating accounts	Control through accounts
The work sheet	The voucher system	Coördination of fundamentals and principles of accounting
Accruals and prepayments	Cost elements	

C. Operating Plan: 15 fourth-year Industrial Engineering students, 1 one-hour period and 2 two-hour periods a week. Classroom work includes lectures, discussions, recitations, and laboratory exercises. Daily homework problems are required. A three-hour final examination is given at the end of each semester.

Number of Usable Replies 19	Average Minimum Hours per Week					Teaching-Load in Semester Hours	Hours Per Week for Teacher First Time	Hours Per Week for Experienced Teacher	Ratio of Total Time Requirements to Semester-Hour Credits
	Average Preparation	Correction	Staff Consultations	Student Conferences	Bookkeeping				
Teaching course first time	9.5	3.5	1	2	0.5	3 (1 lecture 2 labs)	21.5 (including 5 class hours)	15.5 (including 5 class hours)	5.2 (per experienced teacher)
Teaching course after years of experience	4.5	3.0	1	1.5	0.5				

formation provided by those asked to evaluate the course under consideration. In addition, the returns included many general recommendations and comments which have both interest and value to accounting teachers. These were primarily in reply to queries on "special skills," "other training," and "special considerations," either needed or desirable to teach effectively the particular course defined in the questionnaire. Among them the following appear to be particularly significant:

Special Skills:

Ability to handle details, patience with slow students, ability to explain and analyze a point from several angles. Ability to visualize the students' mental ability to grasp the subject. Broad experience in practical knowledge of general business methods and practices.

Aptitude for "to the point" illustrative material. There is nothing better than being able to "speak the language" of the group.

Ability to translate factory problems and situations into the lectures and problems presented in the course.

None, except the ability to "put the subject across." This is one of the most difficult subjects to teach effectively; therefore, effective teaching of the subject should be the only special skill.

Other Training:

One year of practical accounting work other than bookkeeping for some small trading concern, or some similar limited experience.

Graduate training in Economics and Accounting.

Practical experience in industry desirable. Job in cost department or factory office preferred.

Business or Corporation Finace, Speech, Psychology.

The actual keeping of records, even simple ones, breeds confidence in both instructor and student.

Special Considerations:

A teacher should keep up with the latest development in his field. He should have available

TABLE II

Summary of Expert Opinions on Minimum Requirements for Teacher of Industrial Accounting									
Course in Industrial Accounting: For definition of course, objectives, operating plan, etc., see Table 1.									
Degrees Required					Other Necessary Training			Required Years Experience	
Number of Usable Replies	Figures Show Number of Replies Indicating Each Degree as Necessary				Fields Listed are Those Included in a Considerable Number of Replies			Figures Show No. of Replies Indicating Each	
	Bachelor	Master	Doctor	Professional	Related Fields	Cultural	Special	Prof.	Teaching
19	9	10	0	2 (C.P.A.)	Cost Acctg. Economics Law Finance	English Social Sciences	Close contact with current trends in practice is necessary	None, 4 One, 6 Two, 5 Three, 4	None, 0 One, 9 Two, 6 Three, 4

several magazines on Accounting and related subjects.

Do not have an instructor who is too theoretical. Comparative theory has no place in such a course generally. Class work by the instructor should be based almost entirely upon demonstration and problem solutions: One learns useful Accounting by observing and through the point of a pencil.

It is of great advantage if the teacher has a good knowledge of the business whose accounting the teacher is trying to present. In our town, there is a brick and tile manufacturing plant, a large sawmill, a cannery, a butter manufacturing concern. A knowledge of how these concerns operate is invaluable.

Unless a teacher has had experience teaching first year Accounting to advanced undergraduates, he should devote all of his time to this one course, the first time he offers it.

The authors appreciate that many readers may feel that the scientific advantages of this proposed method of teacher load evaluation suggested here are more than offset by the demands on both time and care required for its successful use. This objection minimizes itself, however, inasmuch as most of the work incident to such a study can be delegated to subordinates. The increasing demands made upon college deans and presidents make it more and more difficult for them to devote sufficient time to attend to the details of making equitable adjustments of faculty teaching loads. It is of foremost importance, therefore, that educational administrators make full use of those technics that will both conserve the amount of time that must be devoted to this work and correct the maladjustments of teaching assignments that destroy faculty morale.

ACCOUNTING FOR EMERGENCY RELIEF FUNDS

F. L. Preu and J. F. Schoen

Accounting by departments of the Federal Government is not often referred to as a model of modern efficiency, and is commonly regarded as dating from the Hamiltonian era. The organization under the Commissioner of Accounts and Deposits[1] of the Treasury Department which performs the accounting functions with respect to funds appropriated by the Congress for Emergency Relief, however, has demonstrated that it is possible to maintain an accounting system in the Government which is comparable to systems of the largest and most progressive industrial corporations.

Expenditures made under the Emergency Relief Appropriation Acts amounted to $11,924,829,853 as of January 31, 1940,[2] and the tremendous job required for detailed accounting and reporting in connection with these disbursements was accomplished with speed, accuracy and efficiency having infinite lessons and applications for the whole Federal accounting system.

The authority for the establishment of this accounting organization was contained in the President's Executive Order No. 7034, issued on May 6, 1935, which directed the Secretary of the Treasury, through the disbursing and accounting facilities under the Commissioner of Accounts and Deposits, to make provisions for all disbursements from the funds appropriated for Emergency Relief, subject only to such exceptions as the Secretary might authorize, and to maintain a system of accounts necessary to enable the President:

(a) to exercise Executive control over the funds,
(b) to provide current financial accounting information for Governmental agencies concerned, and
(c) to make a complete report to the Congress of expenditures made and obligations incurred, by classes and amounts.

In order to carry out the vast accounting functions authorized by the President, Treasury Accounts Offices were established in each state and territorial possession and the District of Columbia for the purpose of accounting and reporting in connection with emergency funds allotted for expenditure in the respective states, possessions and the District of Columbia. The Treasury Central Accounts Office in Washington, D. C., was established to maintain summary control accounts; to direct operations of field offices; to prepare from reports received from the field offices and information taken from control accounts, periodic publications showing the current status of Emergency Relief funds; and to coordinate the work of the organization with that of administrative agencies.

It is not possible to deal with all of the functions of the organizations in an article

[1] The accounting functions of the Office of the Commissioner of Accounts and Deposits have been in continuous operation since the opening of the United States Treasury Department on September 1, 1789 (1 Stat. 65) with the execution of Appropriation Warrant No. 1 by Alexander Hamilton. Included under the Office of the Commissioner of Accounts and Deposits are the Division of Bookkeeping and Warrants, the Division of Disbursements, the Division of Deposits, the Section of Surety Bonds, and the Central and State Office Emergency Relief Accounting and Disbursing Operations.

[2] Since April 1, 1935, the emergency work of the Office of the Commissioner of Accounts and Deposits has required handling over 22,000,000 vouchers and payrolls and issuance of over 330,000,000 checks. Individual ledger accounts were maintained on more than 270,000 projects on behalf of more than 80 departments and agencies, and, for a time, individual accounts were maintained on over 800,00 farm loans.

of this scope and size, and the discussion therefore will be confined to the operations of the Central Office with respect to control accounting, and the operations of the field offices in the maintenance of detail accounts. Only a brief outline of the general accounting procedures will be given and, in the interest of simplicity, certain exceptions and variations made necessary by circumstances surrounding the maintenance of special accounts will not be fully described.

The system was devised with the view of maintaining complete accounting control over all appropriations by the Congress for Emergency Relief, as well as legislative, budgetary and administrative limitations under such appropriations, to preclude the use of funds for other than authorized purposes. In establishing the procedure, certain other requirements were borne in mind, namely: prompt payments; determination in advance of payment of legality of contemplated expenditures; internal accounting check of the operations of disbursing officers; rendition to the General Accounting Office at periodic intervals of detailed accounts for independent audit; furnishing of information to administrative agencies concerning the current financial status of project activities under their jurisdiction; frequent periodic summary and detail reports showing the financial status of all funds; and complete annual reports to the Congress as required by law. The procedure has been found to be not only an effective means of controlling appropriated monies, but is practical and comparatively simple in operation.

After appropriations are made by the Congress for prosecution of Emergency Relief activities, the funds are set up in the accounts of the Central Office and are available for transfer to the jurisdiction of the administrative agencies involved. The legislative acts providing funds are closely studied by specialists to determine the proper manner of controlling all restrictions and stipulations made. General instructions directing the establishment of appropriate accounts by field offices are issued in sufficient time to preclude delay in the processing of documents after funds become available for use by the administrative agencies.

In order to control funds by administrative agencies and by objects of expenditure, identifying numerical symbols are assigned to each functional activity for which monies were appropriated by the legislative act. These are known as "appropriation symbols," and accounts in field offices and the Central Office are maintained according to the symbols under which the funds were provided.

Appropriation Warrants are drawn by the Division of Bookkeeping and Warrants of the Treasury Department, signed by the Secretary of the Treasury, and countersigned by the Comptroller General of the United States, establishing appropriated monies on the records of the Treasury and the General Accounting Office. Such warrants are made irrespective of objects of expenditure and are entered on the records of the Central Office as available Treasury cash. These entries are reserved, however, pending the issuance by the President of letters approving specific limitations for the types of expenditures to be made. In the case of funds approved for administrative expenses of the Emergency Relief program, the apportionment letters are issued by the Bureau of the Budget.

Control accounts are then established and, under the present procedure, the monies are available for authorization by the administrative agencies for approved project activities. It should be noted, however, that it is only under recent appropriation acts that accounting documents designated as "project authoriza-

tions" may be prepared at this point. In the Emergency Relief Appropriation Acts of 1935, 1936, and 1937, funds were appropriated by the Congress to the President for use by administrative agencies, and it was necessary for him to make separate allocations. In the more recent acts the monies have been appropriated directly to the agencies themselves, and the approval by the President of the above-mentioned "limitations" constitutes sufficient authority for the authorization of funds for the prosecution of work projects.

This change in the system of making appropriations has necessitated two separate procedures in the Central Office in advising administrative agencies that funds are available in the accounts of the Treasury Department for authorization to approved projects. In connection with appropriations made in recent acts, the transmittal of copies of the Appropriation Warrants suffices, while it is necessary that "Advices of Allocation"[3] be issued with respect to earlier funds.

Before work projects may be prosecuted by administrative agencies it is required that approval of the contemplated activities and the estimated cost be given by the President. Such approval is indicated by serially numbered "Presidential letters," copies of which are received in the Treasury Central Accounts Office and distributed to appropriate field offices.

From Presidential letters, limitations for official projects are posted to control records maintained in the Central Office for the purpose of insuring that (a) project authorizations are not issued by administrative agencies in excess of the amounts approved by the President, and (b) that records of field Treasury Accounts Offices, as reflected by their periodic financial reports, show proper project limitations.

Aggregate limitations of approved projects for a given state may amount to considerably more than the total of funds allocated for expenditure in that state. This is done to give to the State Administrator latitude in the selection of projects, and to give flexibility to the program. For example, in the winter it may be necessary to operate indoor projects to take the place of those on the outside which cannot be prosecuted advantageously under adverse weather conditions. White collar projects are generally of short duration and a number must be approved to afford continuity of work.

Upon receipt of copies of Presidential letters by field Treasury Accounts Offices, all approved projects for which they will account are entered into the records. The projects are initially set up in a "not commenced" status, and are transferred to an active status when operation subsequently is commenced.

"Advices of Project Authorization" are issued by the administrative agencies in Washington, D. C., and are used for two purposes: (a) the authorization of allocated funds for the prosecution of activities previously approved by the President (the principal purpose of the form), and (b) the establishment of administrative limitations as to amounts that may be expended on specific projects by field offices. Ordinarily, limitations mentioned in the description of the latter purpose are entered on the records of field offices from Presidential letters. In some instances, however, as in the case of "nation-wide" projects, the total amounts of the limitations approved by the President will not be disbursed through any one field Treasury Accounts Office, and this method is

[3] Upon authority of Appropriation Warrants issued in connection with the earlier Emergency Relief acts, the Central Office issues "Advices of Allocation" to advise administration agencies of allocations made by the President. Authorizations for expenditures on work projects, however, may be issued pursuant to the allocation advices only on activities which have been approved by the President. After issuance of such allocation advices, entries are made in the "unallocated appropriations" and "available allocations" accounts maintained in the Central Office.

utilized to insure that each office performing a portion of the accounting does not approve expenditures in excess of its allotted share, thereby creating an over-expenditure against the project as a whole.

After examination by the Central Office to determine whether the authorization documents are correct in all accounting respects and whether funds are available in the proper accounts, the amounts are entered in the control records against the "limitation" established by the President or the Bureau of the Budget and shown as "available funds." Certification is made that the amounts have been entered and copies of the documents are then transmitted to the General Accounting Office, the administrative agency, and the appropriate field Treasury Accounts Office. The latter office forwards the original to the person designated thereon as the State Administrator for the funds involved to notify him that the project is ready to be commenced under his direction.

In order to avoid delay in the operation of approved projects because funds are not available in field accounts, information with respect to authorization documents is telegraphed by the Central Office to field Treasury Accounts Offices before the forms are mailed, and project accounts are posted accordingly by the field offices. Subsequent authorization increases or decreases are made on forms known as "Advices of Change in Project Authorization." These documents are processed in the same manner as the original authorizations.

On the basis of requisitions prepared by the Treasury Central Accounts Office and approved by the General Accounting Office, accountable warrants are issued by the Secretary of the Treasury to effect the tranfer of funds from appropriation accounts to the credit of the Chief Disbursing Officer's "Central Office Holding Account." After authorizations are issued for the operation of official projects, cash must be transferred from the holding account of the Chief Disbursing Officer to the official credit of the field Disbursing Clerks who will make the disbursements. Accordingly, upon receiving project authorization documents, the Treasury Central Accounts Office requests initial transfers from the Chief Disbursing Officer and the cash is deposited to the credit of the Disbursing Clerks. Copies of the documents effecting these transfers are transmitted to the respective field Treasury Accounts Offices for entry in their accounts. Requests for subsequent transfers of funds are made by the Treasury Accounts Offices as the necessity arises and are transmitted to the Central Office. Proper documents are prepared there and the transfers are effected in the same manner as the initial transactions.

At this point the official projects are ready for physical operation, and "Advices of Allotment" are issued by the State Administrator, through the Treasury Accounts Office, to the Project Manager of each unit. These allotment documents are not processed in the Treasury Central Accounts Office since its control accounts are not maintained on an allotment basis.

Branch offices of the Procurement Division, Treasury Department, have been established throughout the country to procure supplies and material for work projects. Purchase requisitions are prepared by the administrative agencies and transmitted to the field Treasury Accounts Offices, where an examination as to their propriety and legality is made. In any instance where a requisition for purchase is not consistent with the project description, it is returned to the administrative agency for an explanation or correction. As an example, a requisition for ladders would not immediately be passed if the project for which they were to be pur-

chased called for the digging of a ditch. After the requisition has been approved, one copy is transmitted to the State Procurement Office where bids are received.

A copy of the purchase requisition is retained by the field Treasury Accounts Office and is used as the basis for encumbering funds under the related account, in order to insure that sufficient money will be retained to meet payment of the voucher for the material when it is subsequently submitted.

After bids have been obtained by the Procurement Office, an award is made and a purchase order issued to the successful bidder. A copy of this order is forwarded to the field Treasury Accounts Office, where it is compared with the requisition for accuracy. In the event the purchase order is issued in an amount less than the requisition, adjustment is made in the encumbrance established for the purchase. Such adjustment will release a portion of the encumbered funds, which will become available for other obligations.

The material called for in the purchase order is delivered by the vendor to the administrative agency for which it was purchased, and if it is found to be in order a "receiving and inspection" report is prepared and transmitted to the State Procurement Office. Upon receipt of this report, the latter Office prepares a voucher in favor of the vendor and it is subsequently presented to the appropriate Treasury Accounts Office for pre-audit and payment. The voucher is examined as to legality and propriety, and, after determination that sufficient funds have been encumbered in the proper account and that all other requirements have been met, it is passed to the Disbursing Office for payment. The amount of the voucher is entered in the project accounts as an expenditure, thereby liquidating the encumbrance previously established. If the voucher is for a sum less than the encumbrance, a cancellation of the difference is issued by the administrative agency.

This description of the procedure for making purchases through the State Procurement Offices illustrates the method of establishing and liquidating encumbrances which is followed by the Treasury in connection with all types of expenditures. When obligations are incurred directly by the administrative agencies, notices of the encumbrances are submitted to field Treasury Accounts Offices for examination and entry into the accounts. At all times it is possible to determine from the accounts of the Treasury the amounts of accruing obligations of the Government in connection with Emergency Relief activities.

Encumbrances for payrolls are established in the accounts of the field Treasury Accounts Offices prior to the submission of the payroll vouchers. The payrolls are examined to insure that they conform to all requirements and that the payments scheduled are within the prescribed "wage rates." They are then submitted to the Disbursing Office for the issuance of checks to the payees. As a means of insuring that all checks are properly drawn register copies thereof are forwarded to the Treasury Accounts Office for examination.

The effectiveness of the Treasury's pre-audit of expenditures is evidenced by the infinitesimal number of exceptions taken by the General Accounting Office in its post-audit of accounts of Disbursing Clerks. This pre-audit, however, is completed with a negligible delay in the processing of payrolls and vouchers.

Periodic reports are submitted to the Central Office by field Treasury Accounts Offices to reflect the status of their accounts with respect to project activities. From these reports it is determined that field records are in complete agreement with the master control ledgers main-

tained in the Central Office. The following reconciliations are currently made:

(a) Daily summaries of disbursements and collections, prepared by field Disbursing Clerks, are recorded in the records of the Central Office, and the totals are compared with corresponding disbursement and collection figures submitted by field Treasury Accounts Offices on financial and accounting reports. This reconciliation insures (1) that disbursements by Disbursing Clerks do not exceed the available fund accounts in the Central Office, and (2) that the field accounting and disbursing offices are in complete agreement with respect to disbursements and collections.

(b) Presidential limitations of official projects, as reported by field Treasury Accounts Offices, are compared with the amounts shown in the control of the Central Office to verify the accuracy of these amounts. This operation permits assurance that the records of field offices reflect proper amounts available for project activities.

(c) Amounts of project authorizations issued by administrative agencies, as reported by field offices, are verified with the control accounts of the Central Office to determine whether all documents have been properly entered.

(d) The available fund balances reported by the field offices are compared with the control records.

(e) Amounts of cash transferred to Disbursing Clerks are verified with periodic reports from the field.

Monthly Balance Sheets are prepared by the Central Office to present complete and comprehensive data with respect to the status of all funds appropriated for Emergency Relief, as reflected by the control accounts. In addition to reconciliations with the field Treasury Accounts Offices, it is currently ascertained by the Central Office that its records are in complete agreement with the Division of Bookkeeping and Warrants and the Division of Disbursement.

One of the most important functions of the organization is the preparation of periodic consolidated reports showing the current status of all Emergency Relief funds with respect to Presidential allocations, limitations, authorizations, obligations, expenditures, unobligated balances and unliquidated obligations. Classifications are presented according to Congressional limitations, organization units, states and regions, types of work, and objects of expenditure, as well as other classifications deemed necessary to present a clear picture of all activities.

Reports, in summary form, are prepared each semi-monthly accounting period; more detailed reports are prepared each month; and a complete detailed annual report is transmitted to Congress at the beginning of each regular session, as required by law. The reports are prepared from information received from field Treasury Accounts Offices in periodic financial statements. Such statements are audited and compared with the control records of the Central Office, and are transmitted to a machine tabulating section where consolidated reports are prepared on tabulating equipment. By the punched-card system it is possible to prepare with great speed, from comparatively simple accounting statements of the field offices, numerous reports by the various classifications mentioned above. The larger field Treasury Accounts Offices also are equipped with tabulating machines in order to expedite the maintenance of accounts and the preparation of reports. Smaller offices use conventional bookkeeping equipment.

Within a few days after the close of each accounting period, copies of consolidated reports are published and released to all offices concerned, and the annual report to Congress, which consists of more than five hundred pages, is available within ten days after the close of the calendar year. The dispatch with which financial statements are prepared evidences the smoothness of the operation of the organization as a whole.

It is provided by law that before accounts are rendered to the General Accounting Office for final audit and settlement, an administrative examination must be made in Washington, D. C. Although the agencies in Washington usually perform this function for regularly appropriated monies, the Commissioner of Accounts and Deposits was vested with the responsibility by the President in connection with Emergency Relief funds. The field Disbursing Clerks transmit all paid vouchers, together with their Accounts Current, to the Central Office, where the examination is conducted prior to their transmittal to the General Accounting Office.

The procedure installed by the Commissioner of Accounts and Deposits for accounting with respect to monies appropriated for the work relief program has attracted wide and favorable comment. By virtue of consolidating the control of funds under the several Governmental agencies involved into one system, complete information is available at all times concerning activities under the program on a nation-wide basis. Further, such a consolidation has great advantages from the point of view of economy. The maintenance by one organization of detailed accounts for a number of administrative agencies naturally would substantially reduce the cost.

Secretary Morgenthau, in a report to the President after the close of the calendar year 1935, said: "The accounting and disbursing procedure provided by the Treasury Department under Executive Order 7034, and Department Circular 543, approved by the President, combines in a unified system, for the first time in the history of the United States, all the features essential for Executive control over the allocation, allotment, obligation, and disbursement of public money. It is the first time the financial department of the Government has been in a position to know at all times the unencumbered balances under appropriations and the unliquidated obligations outstanding against the Government. It is the first time that the Treasury has been able to make such information available to the public currently. It is also the first time that the President has had available every ten days[4] a consolidated statement showing the financial progress of a program for the Government as a whole, by Congressional limitations, by organization units, by states and regions, by types of work, and by objects of expenditure. In no small measure these results have been achieved through the close connection between accounting and disbursing activities under the same administrative control."

The Federal Government in adopting this system of accounting for Emergency Relief expenditures has demonstrated that it is possible for it to maintain a system of accounting as efficient as private industry. Now that this precedent has been established within the Government itself, it may only be a matter of time until a similar modern, centralized system of accounting is provided for all funds appropriated by the Congress.

---

[4] Ten-day accounting periods recently have been replaced by semi-monthly periods.

ACCOUNTING AS A TOOL FOR ECONOMY IN GERMAN BUSINESS

ADOLPH MATZ

WITH the start of European hostilities, innumerable questions concerning industries, commerce, raw materials, and economy of the belligerent nations were raised in our daily press. Of particular interest was Germany, which through the innovation of its "Four-Year" plan, had set out some years before to place its national economy as much as possible on a basis of self-sufficiency. Stringent foreign exchange laws, rigid economy, strict control over capital and labor, barter-trade with other nations, and rationing of food articles have long been regarded as measures foreign to American trade, business, and national policies.

To a close observer the present wartime status of the entire national economic situation reveals itself as a long and carefully drawn-up plan.[1] Once the economic philosophy of the new order had been exposed and preached often and thoroughly enough, laws and regulations resulting therefrom quickly followed in its wake. It is the purpose here to present the development of that phase in the German business world which on the one hand has made such rapid and important progress, and, on the other hand, has been called upon to help in the struggle for greater economy and for the success of the Four-Year Plan.

To the International Congress of Accountants, held in Berlin in September, 1938, the German Minister of Justice, Dr. Frank, sent a telegram in which he "considered it to be the highest aim of the accountancy profession to assist German economy in its endeavor to increase and assure efficiency. This effort is the profession's creative duty towards the people and the nation."[2] If the profession was to fulfill this task it was essential that it possess the necessary tools. Long before the government made itself so unquestionably clear on the question of the accountant's responsibility, capital, i.e., business and industry, was told that "capital has to serve the people and not vice versa."[3] For, "just as much as an individual does not receive alms which fall from the laden table of the entrepreneur, but has the right to ask for work and wages, the businessman shall not 'make sacrifices' but fulfill his duty. In this case, duty means that an industry must calculate on a clean and careful basis. The more cheaply a business operates, the more it saves for the entire nation."[4]

In order to secure this desired goal, the German government inaugurated its aims in the "Law for the Preparation of the Organic Structure of German Economy" which was decreed on February 27, 1934. At that time it was stated that German business and industry were overorganized, and it was hoped that "economic groups" could be created to which each and every business and industry should belong. This law seemed to have had some effect. But in November of the same year it was followed by a second

[1] Dr. Alfred Pfaff "Der Wirtschaftsaufbau in Dritten Reich," *Deutscher Volksverlag*, München, 1932.

[2] "Der Wirtschaftstreuhänder," Sept. 15, 1938, Heft Nr. 17/18, p. 1.

[3] v. Ribbentrop, "Vierjahresplan und Welthandel," Junker & Dünnhaupt Verlag, Berlin, 1937.

[4] H. Rolf Fritzsche, "Die Wirtschaft in Deutschland," Hanseatische Verlagsanstalt, Hamburg, 1936.

decree which officially established the technical and regional unification of the groups that had been formed since February. The chief groups comprise: Industry, Trade, Commerce, Banks, Insurance Companies, and Utilities. During the next year and a half these groups brought enough pressure upon each businessman to make him join with a group or, in many cases, with several groups. It seemed that in many of the latter instances the pressure and the zeal of the leaders of the various economic groups were greater than desired. Therefore the Law of July 7, 1935 was promulgated to eliminate: 1) "certain defects with regard to the principle of compulsory membership forced upon the businessman under the precept of the principle of totalitarianism, and 2) to establish clear-cut lines of responsibility for the leading personalities, together with their authority over suborganizations."[5] The Chambers of Commerce were elevated to semi-governmental agencies in order to provide a connecting link between government and business. It was definitely provided that every firm was to join only that group in which its particularly industry or business was of primary importance. In return, the groups were entrusted with certain duties toward their members. Among such duties were included instructions in 1) matters of technical development; 2) the improvement of working and accounting methods, particularly those concerning cost accounting and price calculation; 3) tax problems, and 4) problems arising in connection with foreign exchange.

The laws and regulations mentioned so far were merely for purposes of organization. Over a two-and-a-half-year period industrial and business groups had been formed; cooperation within the group and between groups and chambers of commerce had been started; technical and managerial improvements had been undertaken. But the government felt that the success of the Four-Year Plan required broader and more stringent authority and the release of November 12, 1936, issued by the Minister of Economy,[6] marks a turning point in this development. The far-reaching influence of the government upon industrial and business activities is clearly indicated in these words of the Minister of Economy: "The industrial groups as organizers of self-management in business should accomplish, in addition to their own affairs, all those tasks which the national government imposes upon them. In the future it must be possible for my ministry to confine itself to the issuance of general political-economic directions, while these directions must be executed under my supervision by the various groups and chambers on their own responsibility. To accomplish this aim the following is decreed: 1) It is the task of all these groups and chambers to educate their members to the greatest possible economy and highest achievement for the benefit of people and nation. They should direct these necessary tasks particularly with regard to improvements in technique and accounting (uniformity, bookkeeping methods, price-calculations, analysis) and in the field of statistics and market-analysis. It is the duty of the leaders of the various groups to examine upon their own initiative and responsibility any possible amelioration in the suggested phases of business.

The release not only imposed such tasks upon the groups, but it also made the following suggestions for their accomplishment:

"On the technical side, the active sup-

[5] Pfundtner-Neubert, "Das Neue Deutsche Reichsrecht," Sammlung, Industrieverlag Spaeth & Linde, Berlin.

[6] Reichs- und Preuss. Wirtschaftsministerium. Ministeriablatt für Wirtschaft, Jg. 36-1936-Nr. 18, p. 296 ff.

port of the Four-Year Plan is of primary importance. The groups and chambers must 1) promote on their own accord all questions with regard to the producing and saving of raw materials and 2) must support the efforts of the respective bureaus through suggestions, plans, and general coöperation. In this connection, old and deep-rooted ideas which guided the enterpriser only in the hope of making profit, must now be examined in the light of their justifiability insofar as they further the success of the Four-Year Plan as a national undertaking.

"The more urgent tasks of management are the improvement of bookkeeping and accounting as well as the construction of uniform accounting systems. The creating of an approved accounting system and of a satisfactory cost system is important. The determination of like costs and expenses enables a businessman not only to survey his own costs, but also to compare them with the costs of others or at least with the average costs of his particular industry. In this way, the business aids the economy of all German enterprises in their endeavor to lower costs and prices and prevent the unnecessary raising of prices. The Minister of Economy assumes that the industries will accept voluntarily any principles or objectives of accounting which have been worked out by the groups. If necessary, the leader of the industrial or business group can force the member by means of a fine to accept the uniform accounting system approved by the Ministry of Economy."

Immediately upon the publication of this release, the leaders of business and industry began work in all fields of accounting. However, since this labor was so widespread and often lacking in coordination, the necessity arose for creating uniform objectives. For, inasmuch as an industry or business belonged to several groups within the national industrial framework, it had occurred that an accounting system of one division was contradictory to that of another. Such difficulties would not only prevent the possibility of uniform systems but defeat one major purpose: comparability.

In order to find a uniform basis which would lead to a general development of accounting, particularly cost accounting methods and systems, the Board of Industrial Economy (Reichsausschuss für Betriebswirtschaft, RfB), a subcommittee of the Curatorium for Economy (Reichskuratorium für Wirtschaftslichkeit, R.K.W.), was founded. The members of this board were chosen from three groups: the governmental agencies interested, universities, and industries. Such selection it was felt, would make the board a real success. Immediately upon the start of its endeavors, the board considered the following fields as the most urgent and important:

1) Objectives for the organization of bookkeeping and accounting

2) Creation of uniform accounting systems.

3) Objectives with regard to cost accounting.

4) Uniform terminology in accounting.

The work of the board was carried on successfully during the year 1937. On November 11, 1937, the Ministry of Economy issued upon the recommendation of the board its "Release concerning Guiding Principles for the Objectives of Bookkeeping and Accounting."[7] This release consisted of three parts:

1) Guiding principles for the organization of accounting

2) Requirements of an organized accounting system

3) A uniform accounting plan

---

[7] R. K. W. Mitteilungen, Herausgegeben von Reichskuratorium für Wirtschaftslichkeit, "Grundsätze für Buchhaltungsrichtlinien," Nov. 1937.

The chief aim of this release was to bring 1) all the existing accounts in industry, trade, and commerce into a purposive order, and 2) to allow the various groups to organize their own systems according to their specific needs. Of particular interest are the words of the director of the the Reichskuratorium who writes that "these principles are the result of united efforts, which required a great deal of insight on the part of all participants and some renunciation of old, beloved customs as well as of individual desires!"

The release of November 11, 1937, opens with these remarks: "The new aims of the German national economy require increased achievement and greater economy on the part of the entrepreneur. Prerequisites for the fulfillment of this great task are a profound knowledge and complete comprehension of all business transactions. Therefore, a well-rounded accounting system is the basic element for the function of industrial organization. The entire national economy, particularly the aims of the Four-Year Plan, requires that the accounting system of all enterprises be formed according to uniform principles. The uniform development of accounting must succeed through the joint efforts of all concerned. Mutual and systematic exchange of experiences, particularly in the form of comparisons within an industry, is a means for the attainment of this goal."

The first section of the release deals with "the fundamental tasks of accounting" and states that "a well regulated accounting system must positively comprehend all business transactions as well as all such changes in quantities and values connected herewith, and record them according to a preconceived plan."

Accounting pursues four basic purposes:

1) At the end of the fiscal period, ascertainment of assets, liabilities, and capital; determination of profit or loss for the period; and during the year, periodical statements.

2) Price calculation, supervision of costs, and examination of prices.

3) Supervision of the development and results of the managerial economy of the enterprise.

4) Planning and budgeting.

Each accounting system should be divided into four basic forms which allow the attainment of the above-cited purposes.

1) Bookkeeping with its periodic or annual statements (Time statements)
2) Cost Accounting (Price statement)
3) Statistics (Comparative statement)
4) Budget (Future statement).

If the accounting system is to fulfill these tasks, certain requirements must be demanded of its organization:

1) The system preferred is double-entry bookkeeping. However, the single-entry method is also allowed as it is still being used by small enterprises, such as tradesmen, merchants, and dealers. Their organized groups have striven with great endeavor for the use of the single-entry system by their members and for understanding and perfection of the system through educational methods.

2) Accounting must be clear and distinct. The release does not prescribe an accounting system; it merely proposes minimum requirements. Yet, if a system within a certain business has been developed, its construction must permit comparability within its specific industrial group. In such a case, the number of accounts should be enlarged to such an extent that the individual system will eventually satisfy the desired aims of the industry.

3) Accounting must comprehend values

and changes of assets, liabilities, costs, expenses, and income. In case of a division in main-, branch-, or factory-ledger, these parts must be coördinated. Accounts such as those of partners' capital or income which had been kept secretly and separately can still be treated in this fashion. But it is expected that these accounts will be kept within the scope of the entire system by means of controlling accounts.

4) The most important consideration of the system is the type and number of accounts ("Kontierung"). For this reason the businessman is urged to follow the chart of accounts. These accounts must permit a clear comprehension of each business transaction as well as sufficient division of costs, expense, and income items. Naturally, the size of the business, its needs and functions are the deciding factors in the final analysis. It is no longer permissible to load an account with certain items which are distinctly different in origin, nature, and purpose. The "Merchandise" account of mercantile establishments and the "Material" account of the manufacturing concern have only too often served as a reservoir for inventories and items of income. It is suggested, therefore, that a) items such as discounts, rebates, allowances, corrections, specific costs and income items be recorded in separate accounts, and that b) finished goods when placed in "Stores" or when sold be recorded with the aid of the production cost report. These suggestions are only advisable when the size and type of business needs or permits them.

5) The classification of the Balance Sheet and the Profit-and-Loss Statement should follow the regulation of §131 and §132 of the corporation law, decreed January 31, 1937. The corporate statements have been chosen as examples, for neither the smallest nor the largest business enterprise will have difficulty in adjusting its own statements according to the suggested form. Furthermore, since the various accounting systems adhered to the plan in dividing their accounts, the requirement merely follows the general trend. With regard to the Profit-and-Loss Statement, the release considers the separation of operating from non-operating income items as absolutely essential.

6) Accounting must make possible:

a) yearly as well as monthly statements.
b) a separation between determinable and non-determinable, as well as extraordinary costs, expense and income items.

Part a) clearly indicates the modern trend in German accounting literature. Any of the above mentioned requirements would not come up to expectations unless they would permit the construction of statements whenever desirable. The release intends to establish measures by which purchases covering the needs for a great length of time are properly allotted to the respective periods in which they are consumed.

7) A step forward in German accounting procedure is indicated by the following requirement: "Accounting must perform the function of control for all business transactions for the purpose of calculation and statistics." Dr. Richter discusses this point and thinks that "such a task has never been accredited to accounting before. With regard to calculation, it means that the total sum of all individual cost calculation must result in the sum of the control account. Therefore, the system must be set up in such a way that the cost calculation uses the same uniform value for each labor hour and for each requisition as recorded summarily during the same period in the general ledger. Such a conformity is practical only with stable, uniform prices over a great length of time or with the application of Normal (Standard)

EXAMPLE OF A CHART OF ACCOUNTS

0 Fixed Assets, Liabilities and Capital Accounts	1 Financial Accounts	2 Extraneous Accounts	3 Raw Material and Other Material Accounts	4 Cost Accounts
00 Real Est. Used 000 Factory 001 Warehouse 002 Office Bldg. 003 Workers' Houses 01 Real Estate Not Developed 02 Machinery 020 Boilers 021 Compressors 022 Power Machines 023 Others 03 Transportation 030 R.R. Track 031 Ramp 032 Elec. Wagon 033 Trucks 034 Horse-drawn Vehicle 035 Passenger Cars 04 Tools and Equipment 040 Tools 041 Factory Equip. 042 Office Equip. 05 Concessions, Licenses, Trademarks, Patents 06 Interest and Long-Term Investments 060 Subsidiaries 061 Other Investments 062 Mortgages 063 Long-Term Transactions 07 Fixed Liabilities 070 Loans 071 Mortgages 072 Long-Term Transactions 08 Capital and Reserves 080 Capital 081 Legal Reserves 082 Voluntary Reserves *(Concluded in next column)*	10 Cash 101 Main 102 Freight 103 Petty 11 Postal and Bank Acct. 110 Postal 113 Reichsbank 115 Other banks 12 Notes, Checks, Foreign Exchange 13 Stocks 131 Own stocks 132 Other stocks 14 Accounts Receivable 141 Accts. Rec. 149 Doubtful Accts. Rec. 15 Other Receivables 150 Own Advances 151 Receivables from Subsidiaries 16 Accounts Payable 17 Notes Payable 18 Other Liabilities 180 Customers' Advances 181 Liability to Subsidiaries 182 Liability to Banks *Class 0—concluded* 09 Changes in Valuation, Reserves, Extraneous Accounts 091 Changes in Valuation 092 Reserves 093 Deferred Assets 094 Deferred Liabilities	20 Extraordinary and Non-operating Expenditure 200 Gifts 201 Losses Due to Accidents 21 Interest charges 22 Income taxes 23 Building and Real Estate Expenses and Losses 230 Expenses 231 Income 24 Extraordinary Earnings 240 Earnings from Participation 242 Gains Due to Sale of Fixed Assets 25 Interest Earnings 26 Major Repairs and Construction jobs 28 Price Variation Accounts 280 Raw Materials 281 Other Materials 29 Other Extraneous Accounts 290 Technical Depreciation 291 Calculated Depreciation	30 Raw Material 33 Other Material 34 Fuel 35 Small Material 36 Finished Parts Purchased	40 Direct Wages 41 Indirect Wages 416 Wages for Repairs 417 Wages for Vacations 418 Freight Charges 42 Salaries 425 Additional Salaries 43 Social Expenditures 430–435 Legal 430 Sick Benefit Insurance 431 Invalid Ins. 432 Unemployment Insurance 433 Dues to Workers' Protective Assoc. 434 Employees' Insurance 436–439 Voluntary 436 Benefits 437 Pensions 438 Other Personal Insurance 44 Other Materials 441 442 Fuel, Coal 443 Gasoline, Oil 444 Material for Repairs 445 446 Office Supplies 447 Wrapping Supplies 45 Light, Gas, and Water 46 Depreciation, Repairs 460 Depreciation 461 Small repairs 462 Major repairs *(Continued in next column)*

for a Manufacturing Concern

5 Allocation of Costs	6 Reserved for Cost System	7 Accounts for Goods in Process and Finished Goods	8 Income Accounts	9 Closing Accounts
50 Allocated Raw Materials 51 Allocated Direct Wages 52 Allocated Manufacturing Expenses 53 Allocated Material Costs 54 Allocated Administrative Costs 55 Allocated Selling Costs		70–72 Goods in Process 73–75 Finished Goods 76 Own Produced Fixed Assets Tools 77 Parts of Own Production 78 Major Repairs which increase valuation	80–82 Sales Accounts 83 Income from Sale of Scrap 84 Income from Sale of Goods not Manufactured in the Plant, also Gain from Sale of Foods not Taxable under the Turnover Tax 85 Income Reductions 850 Discounts 851 Rebates 852 Allowances 853 Special Commissions 854 Deduction Granted to Sales Organizations	90 Extraneous Accounts 91 Monthly Profit-and-Loss Account 92 93 Yearly Profit-and-Loss Account 94 Annual Balance-Sheet Account
Class 4—continued 47 Taxes, Fees, Dues Insurances 470 Taxes 4700 4701 4702 Various 4703 types of 4704 taxes 4705 4706 471 Assessments 472 Fees 473 Dues 475 Insurance 4750 Fire 4751 Theft 4752 Liability 4753 Credit (*Concluded in next column*)	*Class 4—concluded* 48 Diverse Costs 480 Mail costs: 4800 Postage 4801 Telephone 4802 Telegraph 481 Travel Expenses 482 Expenses for Representatives 483 Advertising 484 Legal fees 485 Licenses and Patents 486 Transportation 487 Rent 489 Other Expenses 49 Separate Individual Costs 490 Separate Indiv. Costs for Mfg. 495 Separate Indiv. Costs for Selling 4950 Freight Out 4951 Commissions 4952 Turnover Tax			

prices; as the former can scarcely be expected, the logical application of the suggested requirement would necessarily lead to a 'standard cost system.' "[8] In America such methods have been widely employed, and the requirement seems rather odd as well as belated. But it must not be forgotten that the German manufacturer has been very slow in accepting cost systems. Today, with the pressure of the government upon his activities, he is compelled to accept these rules for the sake of national economy.

8) All transactions must be based on proper "papers" (bills, invoices, vouchers, etc.) which must be kept on file. The former habit of adjusting and correcting the books without authority would thus be eliminated.

9) Accounting must make possible:

a) Examination and auditing without too much difficulty.
b) Sufficient comparability with other companies and, therefore,
c) A good analysis of its capital structure, its business, its income and expenses.

These points lead essentially to an extensive uniformity which is in many cases not only desirable, but also possible without curtailing the various types of information desired by individual companies. Of course the most important items of balance sheets and income statements are alike in all businesses, particularly in the same types of business. Individuality is found in accounts concerning inventories, costs, expense or income items.

10) In the last analysis, any of the requirements mentioned would be valueless unless tied in with a comprehensive cost system. The general introduction of an exact supervision of all costs is the main objective of the new regulation of accounting. "In the cost system of industrial and other concerns," the release states, "accounts for various costs, for goods in process, for finished goods, and for income items are to be kept. Particular emphasis must be placed upon the types of costs and expenses as well as the bearer of these costs." In spite of the progress made in Germany with regard to cost-accounting methods, the possibilities for analysis and control through them has not yet been fully appreciated. Mere observance of the requirement is insufficient, unless the findings are compiled with full comprehension of their significance. The resulting economy of each industry will lead to a greater national economy.

As an extensive cost-accounting system might be too cumbersome and expensive in many cases, the release suggests a production or cost report ("Betriebsabrechnungsbogen") in its place. This "Betriebsabrechnungsbogen" obtains its cost figures from the regular bookkeeping record, distributes them according to types, and returns the classified items by means of entries to the general ledger. Such a "report" could be used not only by industries without a cost-accounting system, but also by enterprises active in trade, commerce, banking and insurance. The "Betriebsabrechnungsbogen" as a technical, report-like method for a satisfactory and easy distribution of costs and expenses, does not require a greater personnel or too much technical knowledge of cost accounting. This production report (also called cost report or cost sheet) represents the connecting link between the general accounting system and price calculation which by this arrangement is always quickly and easily available for examination.

The application of these "guiding principles" is found in the "Chart or Code of Accounts" which is a plan for the organization of any accounting system. This

[8] Dr. A. Richter, Berlin, "Die Buchhaltung als Mittel zur Steigerung der Wirtschaftslichkeit," in "Der Wirtschaftstreuhänder," p. 41, 1939, Feb. 1.

chart of accounts is considered the best guide to the construction of a uniform cost analysis. As a further aid, uniform statistics are to be kept which permit the application of certain analytic processes with regard to changes in assets, liabilities, capital, inventories, turnover, costs and expense items. Such figures must be studied carefully in order to determine the economic success of a business and to compare that business with industries of the same group. In its conclusion, the release states that "an accounting system which has been constructed along the above-suggested lines will not only be a great help to the general public, but primarily to the individual business itself, because it will supply it with that knowledge which it needs for a successful management."

It must, of course, not be assumed that the "Chart of Accounts" is the final word or the only possible system. Since the publication of the release, many industrial and business groups have been able to create a satisfactory system which has been approved by the Board of Industrial Economy. Groups dealing with paper, cellulose, woodpulp, automobiles, fine mechanics and optics, textiles, building, clothing, glass, imports and exports, small businesses, restaurants, inns, iron, steel, tin, etc., have completed such charts for their members. It might be of interest to point out that the group "Building or Construction Industry" requires its members to keep their books, beginning April 1, 1938, on the double-entry bookkeeping system. It further states that for each building started a separate account is to be opened. The group "Small Business or Merchants" which comprises the butcher, baker, grocer, barber, and other small enterprisers, *must* keep books after January 1, 1939. The Board of Economy expresses the hope that by April 1, 1940, all groups of the entire nation will have created their respective accounting systems with the approval of the national authorities.

FUNCTIONS AND ACTIVITIES OF THE CONTROLLER'S DEPARTMENT

V. L. ELLIOTT

DEVELOPMENT of the controllership functions, and position, as it is found today in American business, undoubtedly can be traced to the official "Comptroller" in Government posts, performing duties prescribed by law, in an effort to see to it that only appropriated funds were disbursed and for the purpose intended.

This Government function came over into business as business units grew in size. Consequently, the position of "Comptroller" was found first in large concerns, such as railroads, mines, and large manufacturing establishments, many of which have had that office for forty to fifty years.

The greatest impetus to the development of the position of controller was given by the department stores and large dry goods houses which, as many as fifteen years ago, found it advantageous to set up certain controls so that exact and workable records might be made of the thousands of small transactions which constitute such businesses. The Controllers Congress of the National Retail Dry Goods Association must be credited with bringing controllership into the consciousness of many business executives. Controllers of dry goods stores did such an excellent job that it was soon noticed by business men in other fields, with the re-

sult that the office of controller was created in hundreds of concerns. In businesses in which the title and office of controller have not been created, the functions, at least, are usually performed by some officer or employee.

By-laws of corporations pertaining to duties of the controller frequently read as follows:

"The duties of the controller shall be to maintain adequate records of all assets, liabilities, and transactions of this corporation; to see that adequate audits thereof are currently and regularly made; and, in conjunction with other officers and department heads, to initiate and enforce measures and procedures whereby the business of this corporation shall be conducted with the maximum safety, efficiency, and economy. He shall attend all meetings of the Board of Directors and of the Executive Committee and he shall report to the President and/or the Board of Directors as said Board of Directors may prescribe. His duties and powers shall extend to all subsidiary corporations and, so far as the president may deem practicable, to all affiliated corporations."

List of duties performed in total or in part by a typical controller are:

1. The installation and supervision of all accounting records of the corporation.
2. The preparation and interpretation of the financial statements and reports of the corporation.
3. The continuous audit of all accounts and records of the corporation wherever located.
4. The compilation of production costs.
5. The compilation of costs of distribution.
6. The taking and costing of all physical inventories.
7. The preparation and filing of tax returns and the supervision of all matters relating to taxes.
8. The preparation and interpretation of all statistical records and reports of the corporation.
9. The preparation, as budget director, in conjunction with other officers and department heads, of an annual budget covering all activities of the corporation, for submission to the Board of Directors prior to the beginning of the fiscal year. The authority of the controller, with respect to the veto of commitments or expenditures not authorized by the budget, shall, from time to time, be fixed by the Board of Directors.
10. The ascertainment currently that the properties of the corporation are properly and adequately insured.
11. The initiation, preparation and issuance of standard practices relating to all accounting matters and procedures and the coordination of systems throughout the corporation, including clerical and office methods, records, reports and procedures.
12. The maintenance of adequate records of authorized appropriations and the determination that all sums expended pursuant thereto are properly accounted for.
13. The ascertainment currently that financial transactions covered by minutes of the Board of Directors and/or the Executive Committee are properly executed and recorded.
14. The maintenance of adequate records of all contracts and leases.
15. The approval for payment (and/or countersigning) all checks, promissory notes and other negotiable instruments of the corporation which have been signed by the Treasurer or such other officers as shall have been authorized by the by-laws of the corporation or from time to time designated by the Board of Directors.
16. The examination of all warrants for the withdrawal of securities from the vaults of the corporation and the determination that such withdrawals are made in conformity with the by-laws and/or regulations established from time to time by the Board of Directors.
17. The preparation or approval of the regulations or standard practices required to assure compliance with orders or regulations issued by duly constituted governmental agencies.

Several comparatively recent disclosures in the affairs of some business concerns, such as the Musica case, have focused attention on the work of the controller and have resulted in recommendations by the New York Stock

Exchange and the Securities and Exchange Commission. This has created an opportunity for the controller to assume his rightful place in many companies that formerly did not exist. Commissioner Healy, of the Securities and Exchange Commission, gave a talk in Cleveland, Ohio, May 15, 1939, entitled "Before the Auditor Comes," in which he said in part—"But in a broader sense, it cannot be denied that the controller is the man who holds the key to sound corporate accounting. It is his system upon which adequate corporate reporting ultimately rests. The auditor, of course, plays a significant role. But he is only the periodical check-up man. There are several groups at the moment who are endeavoring to tighten up the standards of auditing practice and we have seen in the past few days some promising results of these efforts. That is essential, as I have indicated. But it is only one part of the job.

"It appears to me that many of us have come to overemphasize the importance of the audit. For many stockholders, investors and others the very word, 'audit,' has become infested with some sort of magic. Audited accounts are too easily accepted as correct accounts. One tends to forget the limitations upon even an auditor.

"What we need, it seems to me, is a return to the recognition that the primary responsibility for proper accounting rests on the corporate management in the person of the controller. Whether the books are audited or not, the stockholder has a right to look to the corporation's own accounting system for an adequate, intelligible and honest reporting of its affairs. Unless in its daily bookkeeping the corporation recognizes a responsibility to stockholders and investors, the most conscientious audits lose much of their meaning."

Because of the nature of his work the controller knows more of the details of the company's business than anyone else—at least as far as figures are concerned. Accordingly, he frequently finds himself the key man when it becomes necessary to file registration statements with the Securities and Exchange Commission, or prepare statistics for such bodies as the Temporary National Economic Commission (sometimes called the Monopoly Committee) and answer the multitude of questionnaires which all large companies now receive annually. These questionnaires range from those received from innocent college students preparing their theses to those received from the Department of Justice concerning the Robinson-Patman Act and the Anti-Trust laws. In our company, the President has issued instructions that all questionnaires are to be handled in the Controller's Department. This plan provides a convenient central file for all questionnaires and the keeper of this file can soon say whether or not the Company received and answered any particular questionnaire. Frequently, the answers are very technical and, of course, are the result of consultation with other Department Heads.

Someone in the Controller's Department must read all contracts (except those of a purely routine nature such as the usual sales contracts) entered into by the Company to ascertain if payments are to be made or received by the Company and institute the necessary accounting procedure.

Interviewing various Governmental authorities, from a tax auditor or a constable to a F.B.I. man frequently falls to the lot of the controller. I used to get a little excited when a representative from the Federal Trade Commission or a F.B.I. man was announced as being just outside the office, but thirteen years experience has taken the thrill away.

In most companies, the controller bears a large share of the responsibility in con-

nection with the annual report to stockholders. Not only with respect to the balance sheet, earnings statement, and volume statistics, but also with respect to the size, general appearance, kind of paper, photos, charts, and last—but not least—the message to the stockholder. In some companies, this is a real event and is of first importance around the home office for a week or two at that time of the year. Frequently, outside counsel is called in, and may consist of lawyers, industrial relations experts, high-powered public relations consultants, and advertising agencies.

The style of annual reports is about as stable as the style of ladies' hats. Examination of the annual reports of a typical large corporation—say, with a capital of $100,000,000 or more—listed on a national stock exchange over a period of ten years, will disclose many changes in size, color, "tone," and content.

While on the question of annual reports it may be well to point out that it is impracticable to attempt to draft a set of financial statements to fit all industries. A better plan would be to originate a uniform accounting committee in each industry, and let the committee agree upon uniform statements and other information needed for that industry. The chief accounting officers of the leading companies in any industry know the problems of that industry, such as (1) valuing of the inventory, (2) methods of amortizing the fixed assets, and (3) deciding what items should be expensed or capitalized. There are several methods of handling most of such problems. If the uniform accounting committee for the industry cannot agree on one particular method, then alternate methods should be definitely named and described. Each company should then tell its stockholders which plan it is following.

The accounting methods of any large company are necessarily complex. One good way a company can keep security holders informed is to state in the annual report that a "Manual of Accounting Procedure" may be obtained upon application. This manual would set forth the method used by the company in respect to the most important accounting problems. In the oil industry, it would include such subjects as (1) valuing oil inventories, (2) intangible development costs, (3) depletion of oil reserves, (4) depreciation, (5) amortizing undeveloped leases, (6) foreign exchange, (7) intercompany profits, (8) charges to surplus, and the like.

The duties of a controller are naturally very different in various lines of industry. The problems of a retail department store, an electrical manufacturing company, an oil company, and a company manufacturing and renting tabulating equipment are quite different in many respects.

The successful controller should know many other controllers, expecially in the same line of business. This need became so apparent that during the depression the Controllers Institute of America was formed. It was originated in 1931 and although membership is very closely restricted, it now has some 1300 members. The National Association of Cost Accountants has done much to bring about better cost accounting in this country since 1919, while the National Office Management Association is bringing about better office management each year.

The controllers (or other chief accounting officers) in each industry should get together to discuss their mutual problems once or twice each year, and work toward accounting uniformity.

The oil industry has had a Uniform Accounting Committee in the American Petroleum Institute for many years. A Uniform Chart of Accounts, Balance Sheet, Income and Surplus Account are published in book form and may be obtained for a nominal sum. This book also contains a

description and example of the "last-in, first-out" inventory system. The Oil Accounting Committee is probably most famous for creating and adopting the "last-in, first-out" inventory system, which is now being adopted by a number of other basic industries having large investments in inventories, and is included in the 1939 Federal Revenue Act.

When a business must be conducted through a number of domestic and foreign subsidiary companies for various legal reasons, it is necessarily quite complex. This is particularly so in the oil industry where the entire cycle of business from prospecting for the natural resource (crude oil) to placing the finished product (gasoline) into the tank of the ultimate consumer is frequently carried on by a single management. This involves mining, transportation by pipe line subsidiaries which are public utilities under various State and Federal regulatory bodies, complicated refining whereby hundreds of products are made from the single raw material, manufacture of boxes, barrels, and cans, operation of large fleets of ocean-going vessels, wholesale and retail marketing stations, and large numbers of automobiles and trucks. The company may also do millions of dollars worth of new construction work each year. Accordingly, the typical large integrated oil company has many different kinds of accounting.

The average citizen does not realize how finely and delicately business is adjusted or how easily it may be thrown out of balance. Example: When the common labor rate in the steel industry in Pittsburgh was raised, it was a matter of only a few days until the nonunion oil field worker in the States of Arkansas and Texas found an increase in his pay check.

When such major changes in costs come quickly, the controller must have the accounts so arranged that they will readily reveal the increased cost per unit of product sold. A properly designed standard cost system will provide the information promptly.

A good controller is a service man, and must be a good salesman to sell the services of his department to the heads of the various operating departments.

The controller is frequently used as an umpire to settle differences of opinion between Vice-Presidents or Heads of Operating Departments. He must always maintain a neutral attitude if he is to merit the continued respect of others.

The most important function of a controller is that of interpretation of financial statements and other figures to the executives. It is amazing how some executives shun figures, especially a large sheet of figures. Therefore, it is frequently necessary to put important financial facts in story form with a punch to it. The story must be given verbally to some executives, in chart form to others, and only a very few executives will wade through a long, detailed report. The ability to interpret figures in a convincing and interesting way is what makes the difference between a \$3000 per year and a \$25,000 per year controller. Teachers should emphasize this point to their students. Most of the graduates coming into industry from the colleges understand the theory of accounting principles but cannot analyze the variations and changes from one period to another into the various causes and then cannot verbally explain such causes satisfactorily.

Much thought must be given by the controller to the best arrangement of the accounts in order that the proper results may be made readily available. This is a long subject in itself. Briefly, the expense accounts should be classified into four divisions: 1—cash expenses, 2—non-cash items, such as depreciation, depletion, etc. (In some industries this represents large amounts.) Then each of the two afore-

mentioned accounts should be further divided between (1) fixed and (2) variable expenses. This latter division should not be a matter of opinion but should be proven by charts and figures when operating at various rates of "thruputs."

With this kind of information, the controller is in a position to supply information of great value to executives. He is also frequently in a position to originate suggestions of changes in company policies, by demonstrating that a contribution to profit consists of the excess sales value over the variable expenses. These figures are also necessary to ascertain the "break-even" point. Unfortunately, only a small portion of concerns have such information available today, and do not know the lowest price at which they can profitably take orders for "extra" business such as sometimes comes from foreign countries.

Why are earnings better or worse than during the last period? Or, different from the budget? When accounts are divided between "fixed" and "variable" expenses, and a good volume unit exists (such as gallons in the petroleum industry) the causes of variations can be segregated into three main divisions: sales prices, cost prices, and change in volume. These causes can be further sub-divided, as desired. The controller is ill-informed who does not know this information about his company.

John D. Rockefeller seems to have known more about controllership, profit engineering, cost accounting, or whatever it may be called, in the 70's and 80's than most people know now. He is reported to have said:

> I knew where I stood at the close of every business day. I charted my course by figures, nothing but figures. I never felt the need of scientific knowledge, have never felt it. A young man who wants to succeed in business does not require chemistry or physics. He can always hire scientists. No, he should study figures, figures, figures and apply them to his business. What does he intend to sell or manufacture and how many will buy his product? Let him first take paper and pencil and study his market and its possibilities. Figures come first, always.

Was Mr. Rockefeller talking about budgets, standard or expected costs?

Figures are needed more in business today than ever before. Making the proper kind of figures is as important as any work in the company.

Should any controller or accountant ever worry as to whether he has chosen the right vocation when figures are becoming more and more important as business grows more complex every day?

THE FIRST-IN, LAST-OUT METHOD OF INVENTORY VALUATION

George R. Husband

The 1939 Income-Tax Act extends to all taxpayers the privilege of evaluating the final inventory on a first-in, last-out basis. The corollary permits the cost of goods sold to be determined in accordance with the assumption that goods purchased last are sold first. Official recognition is thus given to an additional method of evaluating inventory. The new method does not solve any of the technical difficulties encountered in pricing the goods on hand at the close of the period, since the procedure to be followed is merely the reverse of that called for by the last-in, last-out method. It therefore contributes nothing in the direction of simplicity. Effective support, if such exists, rests in some supposedly desired resultant

in either the balance sheet or the income statement.

THE FUND CONCEPT

Accountants who favor the use of the first-in, last-out method frequently contend that the inventory investment should be regarded as a fund. The going-concern usually must maintain an inventory equal at least to a given minimum quantity; it is therefore argued that it is reasonable to regard a corresponding portion of the investment as being continuously thus employed. As long as the inventory quantity remains unchanged it is held that it should be exhibited at the cost of the quantity originally purchased.[1] It is obvious that this viewpoint contains an element of truth. The same overall or long-run viewpoint, however, may also be applied to cash, receivables, buildings, investments, etc. Ordinarily, in the established going-concern a given minimum of investment will be employed continuously in each of these capacities. If it is logical to evaluate the inventory upon the basis of a fund concept, why is it not just as logical to evaluate all assets upon the same basis? Or, to carry the fund viewpoint to the extreme, why should the accountant not contend that the total asset investment constitutes a fund employment and thereby eliminate the necessity of exhibiting the component parts in the balance sheet in terms of their experienced replacement values? Fundamentally, such concepts call for a new approach to accounting. True historical accounting is not employed merely to record the overall or long-run experiences of the investment fund. The accountant's duty is to record the flow of that fund, consistent with the physical and financial process, into its alternate investments and liquidations. The total capital investment (proprietary and liability) changes frequently; few portions of the asset expression of the capital investment are anchored. Inventory, especially, is subject to more or less continuous replacement. Efficient business usually disposes of its old stock first, particularly when style and perishable goods are involved. The physical goods in the final inventory are therefore seldom those representing the original inventory and investment. An auditor who found such to be the case would promptly charge them off as obsolete stock. Why then should the auditor certify an obsolete evaluation? When changing costs demand the investment of a greater or lesser portion of capital in maintaining a given quantity of inventory, historical accounting should record and exhibit that fact. If this is not done the record becomes inaccurate.

Actually, the first-in, last-out method of evaluation involves a substitution of costs: (1) in the balance sheet the cost of the original inventory is substituted for the cost of the current inventory; (2) the true cost of the final inventory is given a position in the income statement which should be occupied by a higher or lower cost of sales. This is particularly evident when goods are added to the physical inventory subsequent to the last sale of the period. An eclectic fund argument is hardly sufficient justification for such substitution. It therefore appears to be largely rationalization. The true purpose to be accomplished by the adoption of the first-in, last-out method is rather a specifically desired resultant.

In passing, it is pertinent to note that the fund argument leaves no basis for classifying inventory as a current asset. If

[1] As long as the quantity of the inventory does not change, the first-in, last-out method results in exhibiting the cost of the first inventory in all later balance sheets. While it is recognized that increases or decreases in the physical inventory will cause corresponding changes in the inventory evaluation, for purposes of convenience, the following discussion is based upon the assumption that later inventory quantities remain equal to the original one. The first-in, last-out method exerts its most effective long-run influence in terms of this basic quantity. The problem, thus simplified, is also dealt with more easily.

the long-run or fund viewpoint is accepted, inventory would appear to be a fixed asset. It is only in terms of the physical historical experience, or the near-term liquidation, that inventory is properly exhibited as a current item. To argue that the inventory investment is a long-run fund and not exhibit it as a fixed item is inconsistent.

Attention is also directed to the effect which the use of the first-in, last-out method has upon the total of the current assets (the inventory being presumed to be exhibited as a current item) and upon the current ratio. For the undertaking organized during a period of rising prices the inventory, for a time at least, will be exhibited at a figure below its true current cost, the total of the current assets will be less than if true historical costs are used and the current ratio will be less favorable than it should be. The error, however, is on the side of conservatism. For the business organized during a period of falling prices the opposite conditions will prevail: the inventory will be exhibited at a figure greater than its true historical cost, the total of the current assets will be larger than if the inventory were priced at historical cost and the current ratio will be overstated.

THE UTILITY CONCEPT

The advocates of the first-in, last-out method sometimes contend that the inventory should be regarded as a sum total of utility. The argument based upon this concept runs as follows: (1) Inventory replacements merely maintain the stock of utility; (2) If the final inventory is equal to the initial inventory it should be exhibited in the balance sheet at the cost of the utility quantity first obtained; (3) The fact that the actual bona fide cost of the current quantity of utility is greater or less than that of the initial inventory is not of balance-sheet importance.

The utility argument is merely a restatement of the fund argument with the utility concept substituted for the fund concept. In both cases the more or less continuous replacement which takes place is ignored as long as the inventory total remains the same. From the standpoint of historical accounting the utility argument is no more tenable than the fund argument. Although it is true that any given business must usually maintain a certain quantity of utility in the form of inventory, the more or less continuous substitution of like utilities ought not be ignored. True historical accounting should record the departure of the old utility and the substitution of the new utility. Further, if the substituted utility costs more or less than the utility replaced, true historical accounting will record and exhibit that fact. The long-run viewpoint does not justify the presentation of any given utility quantity at other than its true cost.

ARGUMENTS BASED UPON THE INCOME STATEMENT

Two other arguments advanced in support of the last-in, first-out method of computing the cost of goods sold are based upon the income statement. The one contends that the use of the last-in, first-out method results in a more accurate presentation of profits. The other holds that the last-in, first-out method results in a better correlation of sales and the cost of goods sold.

The Profit Argument. The conclusion that the last-in, first-out method results in a more accurate presentation of income apparently is based upon a somewhat different concept of profits than that usually held. Ordinarily, the accountant thinks of profits in terms of mere dollars and cents, not in terms of purchasing power or the utilities possessed. Through the newly accepted method of evaluation, however, the accountant seeks to exclude dollars from the profit figure to the extent that an in-

creased cost is incurred in replacing the original or initial inventory stock. For profit to be represented by inventory, increased dollar cost thus is not sufficient; the physical quantity of inventory or the sum total of utility possessed must increase. The inventory representative of profit can only be the dollar expression of increased quantity, increased utility. As stated, this is a departure from the usual accounting concept of profit.

In a continuously rising market the first-in, last-out method of evaluating inventory decreases the profit figures of successive fiscal periods by an amount equal to the increased cost of replacements, it being assumed that quantities remain unchanged. Thus, if the initial inventory was acquired at an actual cost of $50,000 and the replacement cost $65,000, the profit figure will be $15,000 less than if actual costs were used in the income statement. If the inventory replacement for the second fiscal period cost $82,000, the result will be a $17,000 reduction in profit, etc. In spite of the fact that the actual net increase in the number of dollars coming into the possession of the business from operations may exceed the amount indicated by the profit figure, the excess cannot be profit since the business finds it necessary to plough it back into inventory. Increased inventory cost or worth, therefore, cannot represent profit. Again, as stated above, to this extent accounting is removed from a mere dollars and cents basis and tied to a physical quantity or utility basis.

In a continuously falling market the first-in, last-out method results in profits greater than those which would be recognized if true historical costs were used. The profit figures of successive years will exceed those which would be secured by using true historical costs by an amount equal to the yearly decrease in replacement costs. Thus, if the initial inventory is acquired for $50,000 and the replacement cost is $35,000, the profit figure will be $15,000 greater than if actual historical cost were used for the final inventory figure. If the replacement for the second period costs $27,000, profit will be increased $8,000, etc. The increased profit is represented in the balance sheet by an inventory carried at a monetary figure exceeding the experienced current replacement cost. From the standpoint of the current historical experience both the inventory figure and the profit are fictitious. Justification, however, is based upon the quantity or utility argument. Since a smaller expenditure is necessary for replacing a given quantity of utility, the savings is added to profit; in terms of the original investment the current stock of utility is acquired at a bargain, below the long-run worth indicated by the initial relationship.

The use of the first-in, last-out method thus results in decreasing the profit figure during periods of rising prices and increasing the profit figure during periods of falling prices. Its service in accomplishing these results is not entirely devoid of merit. Such merit, however, is not satisfactorily stated in terms of inventory utility or inventory quantities. The original purchases of goods are made with dollars possessed of the general purchasing power prevailing at the date of acquirement. The first-in, last-out method of evaluation continues to state the inventory in terms of the original purchasing power. The resulting statement of the cost of goods sold has a tendency to adjust the profit figure to conform with the purchasing power of the investment dollar. Three simple illustrations will aid in making this point clear:

(1) Assume that an original or beginning inventory of $600 was purchased on the basis of a price level of 100; that in a later year when the price level has risen to 150 purchases amount to $1800, sales to $2500; that the final inventory containing the same quantity of goods as the original in-

ventory actually cost \$900. The usual statement of profit and loss would appear as follows:

Sales			\$2500
Cost of Goods Sold:			
Initial Inventory	\$ 600		
Purchases	1800	\$2400	
Less: Final Inventory		900	1500
Gross Profit			\$1000

(2) If the statement is prepared in accordance with the procedure suggested by the advocates of stabilized accounting the profit picture appears as follows:

Sales			\$2500
Cost of Goods Sold:			
Initial Inventory (Stabilized, \$600×150%)	\$ 900		
Purchases	1800	\$2700	
Less: Final Inventory		900	
Stabilized Cost of Goods Sold			1800
Stabilized Gross Profit			\$ 700

(3) If the final inventory is evaluated on the first-in, last-out basis the statement appears as follows:

Sales			\$2500
Cost of Goods Sold:			
Initial Inventory	\$ 600		
Purchases	1800	\$2400	
Less: Final Inventory		600	1800
Gross Profit			\$ 700

It is evident that when the inventory quantity remains unchanged the results obtained by using stabilized accounting and the first-in, last-out method of evaluation are the same. If it had been assumed that the price level had fallen instead of rising the influence would have been in the opposite direction; the profit figures obtained from using both methods, nevertheless, would be equal. When the quantities of the initial and final inventories differ, the results obtained from using the first-in, last-out method and stabilized accounting will vary correspondingly. Further, stabilized accounting would adjust all the items of the income statement if necessary; the first-in, last-out method of evaluation adjusts only the inventory figures.

In general, it is preferable to make corrections for price-level changes directly rather than through the first-in, last-out method of substituting costs. The direct method is at least consistent with the assumptions underlying the historical cost approach. It further permits the final inventory to be exhibited in the balance sheet at its own cost rather than at the cost of a preceding inventory. In addition, it has the merit of being an honest and forthright approach to a real problem, thus eliminating the need of resorting to the fund concept and the fiction that inventory is a type of fixed asset.

The conclusion that no amount constitutes profit if it is necessary to expend it in replacing the original quantity of inventory might well be examined further in the light of the theories advanced by the advocates of stabilized accounting. The latter would agree that an increased monetary expression for a given quantity of goods is not indicative of profit when the increase represents a decline in the purchasing power of the monetary unit. Thus, if 5 units of good A which previously had a cost of \$10.00 when the price level stood at 100 are acquired for \$15.00 when the price level is 150, the increase of \$5.00 does not represent increased value. Presumably good A retains the same general relationship to other goods that it possessed earlier. The increased monetary representation is an expression of the decrease in the purchasing power of the monetary unit. The \$15.00 cost is merely a restatement of a previous status and therefore cannot represent profit. The power of exchange possessed by the inventory, except its power to command money, is no greater than that previously possessed. Under such conditions, as stated above, the advocates of the first-in, last-out method are on sound ground when they conclude that the increased monetary expression does

not represent profit. When an increased monetary representation of a given quantity of inventory expresses true appreciation, however, that is, a power to command greater quantities not only of money but greater quantities of other goods as well, the increased monetary expression may well represent profit. In the last analysis business profit is merely an improved relative position as respects the power to command goods. Thus, in spite of the fact that the quantity of inventory remains the same, if a monetary expression of $150 indicates a general power to buy more of other goods than a previous monetary expression of $100, the increased value may properly represent profit. Under these conditions the advocates of the first-in, last-out method do not appear to be on sound ground when they deny the right of increased inventory cost to represent profit. Accounting is not couched in terms of physical quantities; its function is to express relative economic success.

During periods of falling prices when the cost of replacement is less than the cost of the original inventory, the use of the first-in, last-out method of evaluation[2] results in an increased expression of profit (as compared to that secured by using the true historical cost). To be consistent the advocates of the first-in, last-out method must hold that the true profit is the larger amount. Their contention is correct if the decline in prices represents generally increased purchasing power. If the decline in price represents true market depreciation (the inability of a given quantity of inventory to command as much goods in exchange as previously) the smaller profit figure is the correct one. Under these circumstances the advocates of the first-in, last-out method appear to be in error. Further, the accounting procedure is guilty of a disservice in stating the inventory at an amount above its true current cost.

The use of the first-in, last-out method is therefore lacking in discrimination. It is subject to modified approval when price changes are price-level changes and to strong disapproval when price changes represent true market appreciation or depreciation. It is a curious coincidence that the first-in, last-out method of evaluation can be supported effectively only when the concept of changing price levels is made a part of the argument. The plan for substituting inventory costs is really a means of providing a somewhat blind and inaccurate correction for changes in the value of the dollar. Its use indicates that its advocates are disturbed by the results secured from the application of the older absolute historical cost procedures. In seeking adjustment they subscribe to a method which appears to constitute the least break with the concept of historical costs. It would be better, however, to approach the problem through the honest recognition of the end sought; namely, the adjustment of revenues to the demands of more fundamental reality. The round-about approach to the problem is indicative of the restrictive hold which the nominal historical cost approach has upon the minds of orthodox accountants. Accounting will be revitalized when this hold with its abortive arguments is broken.

Adjustment of Costs and Revenues. It is sometimes claimed that the first-in, last-out method provides a better correlation of costs and revenues: it enables the accountant to charge the cost of goods purchased during a specific fiscal period against the sales made during that period. Obviously, this is but a variation of the previous argument: the so-called better adjustment of costs and revenues will result in a higher or lower profit figure. Whether such a statement of costs is proper depends: (1) upon whether the goods

[2] The advocates of this method should not ignore the fact that the income-tax law demands its consistent use.

purchased during a fiscal period actually are sold during that period; (2) upon whether the first-in, last-out method make the proper adjustment for changes in the price level. It was indicated earlier that goods purchased during a particular period are seldom sold in entirety during the period of purchase. Historically, therefore, the first-in, last-out method does not result in the expression of a true relationship between costs and sales. That the method properly compensates for changes in the price level is highly improbable. The adjustment is apt to be more or less than necessary. It is therefore quite unlikely that the statement of costs is more accurate under the first-in, last-out method than under other methods previously approved.

CONCLUSION

In the last analysis, it is probable that the advocates of the first-in, last-out method are motivated by a predetermined end: the desire to influence managerial decisions through a restatement of profits. That such a purpose is proper motivation for accounting procedure is questionable. Certainly it deviates from the goal of historical accounting; namely, the recording and presentation of facts.

THE ECONOMICS OF BUSINESS COSTS

WALTER B. MCFARLAND

THOSE who use cost data often discuss cost finding as though it were possible to ascertain one "true" or "actual" cost figure which, once found, can be used for any and all purposes. There are as many different kinds of costs as there are points of view from which to analyze a given business problem. Hence, as a step preliminary to intelligent consideration of cost problems and the choice of a method for computing cost figures, it seems essential that the accountant should possess a clear understanding of the different needs for cost data within a business organization, the cost concepts that are available to meet these needs, and which of these concepts of cost is appropriate under the circumstances. After the cost that is sought has thus been clearly defined and its relevance established, attention may then be turned to ways of assembling the figures.

In the succeeding discussion those cost concepts of most significance to business management will be classified and defined. Following this, the manner in which these concepts can be applied will be indicated rather briefly.

THE CLASSIFICATION OF COST CONCEPTS

Cost Concepts Classified on Basis of Period to Which the Costs Relate

Business costs may look either backward or forward. In the former case, the cost figures are matters of history and like other historical facts are not amenable to change by any executive decision that can be made now; for this reason past costs may be termed *actual* costs.[1] In the latter case, the business man is confronted with a variety of alternative courses of action each of which has associated with it costs of its own. Here costs are but future possibilities and the cost that will actually be incurred is still subject to change by present executive action; hence, these costs may be termed *prospective* costs.

Planning the future activities of a business is largely a matter of choosing from

[1] The term used above is not intended to carry any implications regarding the precision with which costs can be measured. It is, of course, impossible to obtain cost figures with absolute accuracy.

among a series of options the course which promises the largest excess of revenue over cost. These costs used in planning are prospective costs or, in other words, estimates of what actual cost will be under each of the various policies in view. The process of deriving such figures is, of course, one of forecasting. For example, suppose that a manufacturer wishes to utilize idle space in his plant by installing additional equipment and increasing his output. He is at once faced with a variety of possibilities: He may either expand production of his present product or he may start making any one of several different products. Each of these can probably be made by different methods and with different combinations of equipment. Before an intelligent decision can be made it is necessary to assemble prospective costs for each of the combinations that appears to be feasible. The various estimates necessary will usually be prepared by men who possess technical qualifications to design the product, to choose manufacturing methods and equipment, and to find ways of selling what will be produced. When as a result of this comparison of alternatives a specific policy is chosen as the most advantageous one available, the cost which has been estimated then becomes the cost which the business man actually expects to incur provided there are no deviations from his plans. If the alternatives have been carefully and scientifically compared, the resultant cost may be termed the *standard* cost of the operations contemplated.

Obviously these prospective cost figures are not those which the executive is accustomed to receive in periodic reports from his accounting department. The figures which the accountant collects in his cost sheets and in his ledgers are, instead, actual costs. These actual costs include only expenditures actually made or for which definite liabilities have been incurred. The principal purpose for which actual costs are collected is to enable the accountant to prepare periodic balance sheets and income statements. Utilizing the assumption that, as materials and services are consumed in the processes of production, a proportional part of the actual cost of these factors passes into the value of the product being made, the accountant traces the flow of actual costs into inventories of unsold goods and finally into cost of sales. Assets held for future utilization in the processes of production are usually valued on the balance sheet at the unexpired portion of their actual cost. Actual costs assignable to revenues accruing during the period are reported in the income statement as deductions from the corresponding revenues. Hence the accountant's profit figure is the difference between revenues actually accrued during the period and costs actually incurred to get these revenues.

An example of the utility for the accountant possessed by this distinction between actual and prospective costs is the ease with which the old controversy over interest as a cost can be settled when the cost in question is first clearly defined. Whenever an investment in plant and equipment is contemplated the owners of the capital will naturally compare the return promised by this employment for their funds with alternative uses available. One of the options is to lend their capital at interest or to invest in stocks. Obviously the company should not expand its plant if the return on the capital so employed will be less than could be obtained by investing in marketable securities. When comparing the advantages of investing in plant with the advantages of investing in securities, it may be convenient to include among the costs of the proposed addition to plant the interest that might be earned by investing in securities, although the same result can be arrived at by comparing the profit from an investment in plant

directly with the profit from an investment in securities. When choosing from among several optional ways of accomplishing the same task, it is common practice to compare only the costs without attempting to forecast the revenues. Under these circumstances it becomes necessary to include interest among the costs in order to secure a proper comparison between options requiring different capital outlays.

However, interest on owned capital is not a cost in the sense that it represents an actual expenditure. It is merely a return which the owner would hope for if the capital were used in some other way.[2] Once a decision to expand a company's plant has been made and the funds have been converted into buildings and machines, the opportunity to receive interest or dividends on an investment in securities must be passed by. Actual costs include only expenditures that must actually be made and hence when accounting costs for the determination of profit or loss on operations are being compiled, the cost of opportunities foregone has no place. The conclusion which may be drawn, therefore, is that the nature of the cost under consideration determines whether or not interest is a legitimate component.[3]

Cost Concepts Classified on Basis of Degree to Which Costs Are Controllable by Management

A second basis for the classification of costs may be found in the degree to which they are controllable by management. Here costs can be separated into either *fixed* or *variable*. While the terms themselves are familiar and their denotation, perhaps, self-evident, it is essential that they be defined in such fashion that no difficulty will occur in the process of assigning to the proper category any item that may be met in actual work with cost figures.

Fixed costs may be defined as those costs which remain practically unchanged in total amount when physical volume of output is varied.[4] Such costs are not controllable by management, for their total amount is independent of circumstances which can be altered by executive decision. Variable costs, on the other hand, are costs which do change in total amount as output varies. These costs are controllable by management, for their amount is dependent upon factors which can be varied.

It should be noted that this definition does not apply to unit costs, for when averaged over varying outputs a cost whose total amount is constant yields a unit cost which varies inversely with output. Conversely, a total cost which changes proportionately with output yields an average unit cost which is constant. While fixed and variable costs might be defined from the unit cost standpoint, it seems preferable to define them in terms of total cost since the total cost approach is more familiar.

Fixed costs arise from lack of flexibility in circumstances under which the business operates, for when there are conditions which cannot be altered the costs which accompany these conditions are likewise

[2] If the capital is in the form of buildings, machines, and other nonliquid assets, the economist would call this return a quasi-rent. See Alfred Marshall, *Principles of Economics*, 8th ed., pp. 74–75.

[3] As Professor Eugene L. Grant has observed (*Principles of Engineering Economy*, New York, 1930, pp. 38–39), the question of interest as a cost is like the classic questions "How old is Ann?" and "Have you stopped beating your wife?" in that a short answer may be misleading and that some additional explanation is required in either the question or the answer.

[4] Most commonly the separation of costs into fixed and variable is made according to whether any change in cost occurs when output is varied. However, costs which are fixed when one dimension of the production process varies may be variable with changes in another dimension. Thus machine set-up may be a fixed cost when one type of product is being made, but when several varieties are produced set-up cost may vary with the kind of product under consideration. Most costs which are commonly thought of as fixed are variable when conditions other than output are allowed to vary instead of being held constant by managerial policy.

beyond control. Three principal types of fixed costs may be here distinguished:

(1) Charges for unrecovered outlays still benefiting present operations are fixed costs. This includes depreciation on buildings and equipment, amortization of development expenses, and any similar items.
(2) Expenditures which must be made regardless of output volume are fixed costs. Thus rentals on leased premises and other obligations established by contract must be met. Taxes must also be paid if the company is to retain title to its working assets.
(3) Expenditures fixed by managerial policy are to be regarded as fixed costs. Appropriations for advertising and research, the maintenance of an executive staff, or the continuance of employee service organizations fall under this heading.

Most of these costs are fixed only within a certain range of output and become variable when greater changes occur. Thus, a department may be able to operate at any capacity from 0% to 50% of its possible output at a cost for superintendence which represents the services of one man. Beyond the 50% level it may become necessary for an assistant superintendent to be employed at a resulting increase in the total cost of this function. Likewise if sales drop to a very low level some plants may be closed and sold to reduce depreciation; adjustments in contracts can sometimes be negotiated; and executive policies with respect to retaining key men in the organization may be revised. In a certain measure such changes will depend more upon the output anticipated in the future than upon present output, for when the curtailment is expected to be brief, the organization will be kept intact, but when a long period of depression is expected these charges will be pared down. When a large increase in output is expected to continue for a sufficiently long period, fixed charges will be increased by expanding the scale of plant and organization.

The variable cost category includes costs which change with output in a number of different ways. Thus the following sub-classification of variable costs, which is one that will be found useful in the making of flexible budgets for control of expenditures, may be set up:

(1) Those costs which vary proportionately with output.
(2) Those costs which vary with output, but not at a constant rate.

From the standpoint of cost control it is very necessary that a clear distinction be made between fixed and variable costs. Fixed costs are not subject to control and are, at best, irrelevant when actual costs are being compared with standard costs to measure operating efficiency. If allocated portions of a fixed-cost total are included in actual cost figures used to determine efficiency, it is quite possible that employees will be unfairly judged because fluctuations in output may readily cause the unit cost figures to fluctuate inversely with managerial efficiency. In other words, to hold an employee responsible for apportioned fixed charges that he cannot control violates a cardinal rule of management which requires that responsibility for results must be accompanied by authority to accomplish the aims desired. Establishment of a flexible budget to aid in the control of overhead expense therefore requires that fixed costs be recognized and eliminated from the budget standards.

Nevertheless, fixed costs cannot be forgotten. While they cannot be controlled, the facilities they represent can be utilized and through proper control the outlays made can be recovered and the fixed charges prevented from becoming a loss. The technique of such utilization control is quite different from that of variable-cost control, for while total cost cannot be varied, average unit cost can be reduced (or underabsorbed overhead reduced) by increasing output. If this is a matter of increasing sales it is a problem which re-

quires attention of major executives. Accordingly it is important to classify costs in such a way that operating executives who can control spending may be held responsible for variable costs while those with authority to determine price and product policies may be held responsible for keeping the plant and organization supplied with work orders. However, operating executives can also do much to improve utilization by preventing idleness due to bad scheduling and routing of work, failure to give instructions when needed, or machine breakdowns resulting from improper maintenance. Failure to earn fixed charges may be in part attributable to the factory organization.

When prospective costs are being compared for the purpose of planning future activities, the separation of fixed and variable costs is again necessary. Costs that are really fixed will not be altered by any present change in policy and may be disregarded since they contribute nothing to the cost differences which are the important data for a decision of this kind. This statement may be illustrated by its application to the question of whether or not to replace an old machine—a problem for which cost computations are often improperly made. Obviously it is desired to compare prospective production costs (per year, per unit, or total cost over the life of the equipment) using the old machine with prospective production costs using the new machine. If the old machine still has a substantial book value when the replacement question arises, it is essential to decide what to do with this figure. Depreciation on the old machine for the remainder of its life is a fixed charge which must be borne regardless of whether or not the old machine is replaced. Hence the firm will be better off to install a new machine which promises to lower variable costs even though the book value of the old machine cannot be recovered, for with the fixed charges on the old machine constant under either option, but with variable charges lower with the new machine than they are with the old, net profit must increase after the replacement.[5]

This classification cuts across the traditional accounting classification of costs into direct and indirect costs. Hence it is not possible to use cost figures taken from the accounts for purposes that require separation of fixed and variable costs. The direct costs may be regarded as variable, but the overhead costs must be analyzed in order to determine which elements in them are variable and which are fixed.

Cost Concepts Classified on Basis of Method of Computation

A cost figure may be either an aggregate of the cost of numerous units of product, or it may be the cost of a single unit of product. In the latter case, the term unit cost is applied. Under some circumstances it is desired to measure the cost incurred for each unit of product while under other conditions the collection of cost may proceed by merely finding the total expenditure incurred for a number of product units. Unit costs can readily be summed to give an aggregate cost, but the opposite process of distributing an aggregate cost to units of product is often a difficult one. Hence attention will be turned to a dis-

[5] This can easily be illustrated with a simple numerical example as follows:

	Option 1 Operation with old machine	Option 2 Replacement and operation with new machine
Fixed costs on old machine	$1.00 per unit	$1.00 per unit
Variable costs (prospective depreciation on new machine included in option 2)	1.00 per unit	0.75 per unit
Total cost	$2.00 per unit	$1.75 per unit
Sales revenue	2.25 per unit	2.25 per unit
Net operating revenue	$0.25 per unit	$0.50 per unit

cussion of methods available for deriving unit costs from aggregate costs.

The process of finding unit costs may follow either of two basically different methods: First, is the method by which the accountant always proceeds at some point in his work, that is, to obtain the aggregate cost of a certain output and then divide this total cost by the total number of product units, thus obtaining a unit cost in the form of an arithmetic average. The second is to ascertain the change in total cost that results from production of one more or one less unit of product.[6] This change in cost which accompanies a unit increment in output will here be called ***incremental*** cost.[7]

Since the incremental cost is one which must be incurred if the product unit is produced and one which can be wholly avoided if the unit is not produced, it may be said that production of this specific unit of product is causally responsible for the increment of cost. However, the change in usage of materials and services which brings the change in cost does not always have a physically traceable relationship to the product unit being costed, for the expenses which change may be overhead costs. Since it is a difference, only those cost items which will vary under the different circumstances will have any effect on incremental cost. Fixed costs are disregarded when calculating incremental cost.[8]

From its very nature, incremental cost does not lend itself to routine compilation in the manner that cost accounting systems collect average costs. As. J. M. Clark has expressed it:[9]

> One simple but far reaching fact about differential cost is that it varies, not merely with the present conditions in the plant, but according to the nature of the alternatives which may be under consideration. The extra cost per unit of producing ninety per cent of full capacity rather than eighty per cent will be one thing: the extra cost per unit of working at fifty per cent capacity rather than shutting down temporarily will be a different thing. The extra cost of the first ten per cent beyond normal capacity will be different again: and larger than either of the others. And the differential cost of producing rather than going out of business permanently and disposing of the realizable assets—this will be different from any of the others.

Hence when computing unit costs in this way it is necessary, first, to define accurately the situation for which costs are wanted, second, to compute costs anew

---

[6] While generally defined as the change in cost which accompanies an increment in output of a homogeneous commodity, there may be similar incremental costs accompanying a change in any other phase of production policy—for example, a change in style, a change in size, a change in size of the production order, et cetera. Thus a change in any independent variable affecting the production and marketing processes may bring a change in cost which can be assigned to product units by the method here described.

[7] Other terms applied to the same concept of cost are *differential* cost and *marginal* cost. Perhaps the simplest presentation of this cost concept is afforded by statement of it in mathematical terms. If C represents the aggregate cost of Q units of output and ΔC represents the change in cost which accompanies a change of ΔQ in output, then a unit cost can be obtained by dividing ΔQ into ΔC. This is a unit cost figure which should not be confused with the average cost of either Q units (obtainable from the ratio C/Q) or $Q+\Delta Q$ units $\left(\text{obtainable from the ratio } \dfrac{C+\Delta C}{Q+\Delta Q}\right)$, for in this instance additional cost is divided by additional output whereas under the preceding method of computing unit cost, aggregate cost is divided by aggregate output. This unit cost is, however, an average—the average unit cost of the additional output—and as such it is not necessarily the exact unit cost of any one of the additional units. Since the above cost may be interpreted as the average rate of change in cost between output levels Q and $Q+\Delta Q$, the incremental cost at any specified point in between is obtainable by finding the instantaneous rate of change in cost at that point. In calculus terms, incremental cost is the limit of the average cost of the additional output as the additional output approaches zero; or expressed in symbols:

$$\text{Incremental Cost} = \lim_{\Delta Q \to 0} \frac{\Delta C}{\Delta Q}.$$

The actual application of this latter formula requires that the nature of the functional relationship between C and Q be known; when it has been expressed in algebraic symbols the incremental cost figure wanted can be found by differentiation.

[8] For a mathematical demonstration of this, see Jacob Viner, "Cost Curves and Supply Curves," Vienna, *Zeitschrift für Nationalökonomie*, 1932, p. 27.

[9] J. M. Clark, "Some Central Problems of Overhead Costs," *Bulletin of the Taylor Society*, vol. 12 (1927), p. 289.

when the situation in view changes in any respect that will affect variable costs, and third, to use and interpret the cost figures as differences or rates of change in total cost, keeping in mind the *ceteris paribus* assumptions that accompany them.

The basic method by which most business policies are established is the comparison of additional receipts expected to result from a proposed line of procedure with the additional cost that must be incurred to get the receipts in question. If the question under consideration is whether or not to send salesmen into a territory which has not previously been covered, the executive will wish to compare the sales revenue anticipated from this area with the costs of making and selling the additional goods. To make these comparisons, the policy making executive needs to know the incremental cost and the incremental receipts that are associated with each optional procedure in order that he may choose the line of action which will be most profitable. The averaging method of computing unit costs does not give this information, since it covers up and equalizes differences instead of throwing them into relief as does the incremental method. Accounting literature contains numerous examples of paradoxical statements concerning situations wherein the total profit of a firm was said to be increased by selling at a unit price below unit cost.[10] These paradoxes are readily explained by the fact that the unit costs used were computed by averaging.[11] If incremental unit cost had been compared with unit selling price it would then have been seen that there was really a profit on the sale of each unit. Furthermore it could have been proved that such unit profit figures would sum up to the increase in aggregate profit which resulted from selling the additional product in question. Used by itself, average unit cost may, under such circumstances, lead the business man to choose a policy exactly contrary to the one which would be most advantageous to the firm.

Cost Concepts Classified on Basis of Method of Measurement

There remains one more significant basis of cost classification—that of method by which unit costs are measured. This is a basis used extensively by the accountant, for he finds it desirable to separate cost items according to the technique that he uses in dealing with them. Three classes of costs may be distinguished here, namely (1) costs that may be measured directly, (2) costs that may be measured indirectly, and (3) incommensurable costs.

1. *Direct Costs*

Direct costs are those which can be assigned to product units by observing what material or service goes into each unit: the quantity of lumber that goes into a building and the number of hours of labor used in its construction can readily be accumulated, multiplied by the rates paid for such lumber and labor and the direct material and labor cost of the building compiled. Materials and services whose usage cannot be followed visually can often be traced with measuring instruments: the consumption of electric power can readily be measured by the use of meters; the consumption of steam can be measured with flow meters; and the passage of materials into process can be recorded by automatic counting and weighing devices.

From the standpoint of accurate costing it is obviously desirable to have as large a part of the total cost directly measured as possible.

2. *Indirect Costs*

Certain items of cost are of such a na-

[10] For an example, see C. Howard Knapp, "How to Determine Costs on Predetermined Sales Forecasts with Special Reference to Idle Capacity Cost Applied to the Product," *N.A.C.A. Bulletin*, Feb. 15, 1933, pp. 901–902.

[11] See Walter B. McFarland, "When Is Selling at a Loss a Profitable Business Policy," *N.A.C.A. Bulletin*, Nov. 1, 1939, pp. 328–339.

ture that the quantities used cannot, as a practical matter, be traced directly into specific units of product either because the process of making direct measurements is too costly or because there is no method of direct measurement available. An example of the first is a shop containing machine tools individually driven by electric motors so small and so numerous that the measurement of the power consumed by each motor would require a prohibitive expense for meters. As an example of the second, there is the allocation of cost of janitor service to each unit of product.

When costs are to be measured indirectly, the accountant proceeds by searching for some index of output which fluctuates concomitantly with the indirect cost items and possesses the characteristic that the indirect cost lacks, that is, being capable of direct measurement. Thus the accountant often finds that some indirect costs incurred for a unit of product will vary with the hours of direct labor spent on the unit and enable him to use direct labor hours as a distributing index for applying these indirect costs. This method is not contrary in principle to methods of measurement widely used in other fields of endeavor where exactness and accuracy are required, although it often falls somewhat short in the application.

Measuring the height of a mountain may be taken as a problem in the field of physical science which is closely analogous to the accountant's problem of measuring costs indirectly, for here altitude cannot be directly measured but can be calculated from factors that are accessible (namely, atmospheric pressure or certain angles and base lines) and which bear a known relation to altitude. The accountant is unlike the surveyor, however, in that he seldom establishes with scientific exactitude the relationship between the costs he must measure indirectly and the indexes he uses for apportioning these costs. A large degree of arbitrariness often exists in the accountant's treatment of indirect costs.

3. *Incommensurable Costs*

The third type of costs distinguishable under this basis is that which here will be called *incommensurable* costs. These are costs which cannot be accurately assigned or apportioned to units of product by any of the methods commonly used by the accountant. Included will be what are commonly called joint costs, by-product costs, and a considerable range of other items which cannot be measured either directly or indirectly.

The difficulty, from a practical standpoint, arises from two different causes. First, it is not economically feasible to use physical measures for apportioning some cost aggregates because the expense required to make the measurements exceeds any utility that the information can have. It is quite possible, for example, to distribute the salary of a store clerk to orders he takes on the basis of time spent with each customer, but the time, effort, and expense required to record what the salesman is doing each minute of the day and to make the distributions overbalances the value of such an accurate allocation of cost. The second source of difficulty flows from the fact that many situations involve genuine joint costs and at this point the accountant's technique for direct or indirect measurement breaks down completely. Thus there is no way in which the accountant can, by direct observation, resolve the cost of a hog into separate costs for the products into which the animal is converted; nor is it possible to find any index whereby the products and by-products can be reduced to homogeneous terms of a sort having any discoverable relationship to cost. While this incommensurable character of costs is generally recognized when a large element of joint material-cost is present, it is not always realized that many

true incommensurable costs are present wherever several products share in common the same productive facilities.

While accountants use various arbitrarily chosen common denominators in seeking to distribute incommensurable costs by averaging,[12] these units for measuring output have no discoverable relationship to cost of production. Such arbitrarily determined costs may have some utility for measuring operating efficiency,[13] but they have little, if any, value as a basis for price policy or for determining in what proportions the several products should be produced. The total profit or loss figure will not be affected in the long run by arbitrary averaging to allocate costs to separate products, for these costs are recombined again in the income statement. The operating results for any one period, however, will be affected if the relative quantities of the different products in inventories change from period to period.

The only logical method by which true incommensurable costs can be allocated to separate products is to assign to each product the increase in total cost which must be incurred if that product is produced in addition to the other products. In other words, costs must be distributed by the incremental method rather than by averaging. Even here there is a considerable degree of arbitrariness in choosing the order in which the products shall be considered, although practical considerations of relative importance in the market may be used as a guide.

CONCLUSION

In general, it may be said that method of measurement used is a basis of cost classification that has a great deal of significance to the accountant, for he is directly concerned with formulating and applying techniques for cost measurement. Other bases of cost classification, however, are distinctly more serviceable to business management. The plant executive who must choose the most economical method for performing an operation when several optional methods are available is better equipped to make a decision if he knows which costs are variable and which are fixed than if he has available only a classification which separates costs into direct and overhead categories. Likewise, responsibility for cost control can best be fixed when costs are classified according to the degree of control that a given person in the organization has over their incurrence. It may be concluded that no single cost concept or basis of cost classification can be made to serve all business needs. Instead definition of cost must be appropriate for the problem in hand and the cost figures must then be collected and classified in such a manner that they can give a direct answer to the questions asked.

[12] Market values, pounds of products produced, volumes, heat units contained, and molecular weights of products are examples of units sometimes used in attempting to reduce joint products to homogeneous units.

[13] When used without an appreciation of the arbitrary manner in which costs have been apportioned such methods can produce unfair results. Thus T. J. Kreps ("Joint Costs in the Chemical Industry," *Quarterly Journal of Economics*, vol. 44, p. 416) has recorded an instance where bankers discovered that a company producing caustic soda and chlorine by electrolysis of salt solution was losing money on its chlorine department. Pressure was placed on the management to discharge the superintendent of this department, but the employee offered to put the department on a profit-making basis if given another chance. This request was granted, and the chlorine department thereafter showed a profit. The superintendent merely changed the ratio used to distribute costs so that the caustic was made to absorb more and the chlorine less of the joint material cost. Neither operating efficiency nor the total profit of the company was altered but the bankers were satisfied.

PREMIUM ON REDEMPTION OF PREFERRED-STOCK ISSUES

H. T. Scovill

The question whether premiums paid upon the redemption of an entire issue of preferred stock should be charged to earned surplus or capital surplus, has been the subject of difference of opinion among accountants for a long time. Even at present, many members of the accountancy profession seem to take opposite points of view in the matter.

This study is based on the reasoning developed from the economic concept of profit and loss in business and from the single entry method of calculating profits. The conclusion, that the premium paid upon the redemption of an entire issue of preferred stock is properly chargeable to earned surplus to the extent that the total premium paid exceeds the amount of premium paid into the issuing corporation on the same issue of preferred stock at the time it was issued, is based on the analyses which follow.

It may be well to start with the assertion that the profit or loss of a business during its lifetime is determined from the following computation:

Capital investment at the end (net worth)	——
Plus withdrawals or minus additions of capital and profits by owners during the period	——
Minus capital investment at the beginning	——
Results in Profit or Loss during the period the business was operated	——

The calculation just expressed might be called an interpretation of the economic concept of profit, or it might be called the single-entry method of calculating profit. In either case, it is the duty of the accountant to derive an amount to represent the profit or loss that arises in *each* of the fiscal periods during the life of the business. After the accountant has completed this job for a series of years represented by the life of the business, the algebraic sum of the periodic profit and loss results he has derived should be the same as the profit and loss result obtained by the use of the single-entry idea (or economic concept) for the whole period of time treated as a unit.

There are in business some types of transactions or book entries, however, such as appraisal surplus, profit and loss on purchase and sale of capital stock, and a few others which stand on the records for long periods of time as evidence of uncompleted transactions or potential profit or loss results. Such uncompleted or potential items are not reflected in the periodic statements of the accountant as profits or losses but are considered as such only in the final process of closing out the business when there is an actual realization or lack of realization of the value previously set up. This applies especially to appraisal increments of fixed property and to paid-in surplus or premium on capital stock which has not been subject to modification or realization as a result of subsequent purchases and cancellation of such stock by the corporation.

First, taking a partnership for analytical purposes, the following conditions are assumed:

Partners A, B, C and D each invest \$100,000 in a business, sharing profits and losses equally.

First year. Operating profits \$100,000. D retires at the end of the year receiving

ILLUSTRATION 1

	Net Assets	Capital Accounts A	B	C	D
Original Investment	$400,000	$100,000	$100,000	$100,000	$100,000
Profit 1st year	100,000	25,000	25,000	25,000	25,000
	$500,000	$125,000	$125,000	$125,000	$125,000
Paid to D	116,000				116,000
	$384,000	$125,000	$125,000	$125,000	$ 9,000
Dividing D's share of net worth left in business		3,000	3,000	3,000	−9,000
Capital beginning of 2nd year	$384,000	$128,000	$128,000	$128,000	—
Withdrawal profits during 2nd year	30,000	10,000	10,000	10,000	
	$354,000	$118,000	$118,000	$118,000	
Paid to C	110,000			110,000	
	$244,000	$118,000	$118,000	$ 8,000	—
Dividing C's share of net worth left in business		4,000	4,000	−8,000	
Capital beginning of 3rd year	$244,000	$122,000	$122,000	—	—
Profit 3rd year	60,000	30,000	30,000		
	$304,000	$152,000	$152,000		
Paid to B	140,000		140,000		
	$164,000	$152,000	$ 12,000		
Transfer of B's share of net worth in the business		12,000	−12,000		
	$164,000	$164,000	—		

$116,000 from the business in full satisfaction of his equity.

Second year. No operating profits, but each of the three remaining partners withdraws $10,000 representing profits of the preceding year. C, on withdrawing at the end of the year, is paid $110,000 by the business.

Third year. Operating profits $60,000. At the end of the year B retires and is paid $140,000 by the business.

When these facts are reflected in summary form showing their effect on the accounts of A, B, C and D, and on the net assets they appear above.

The summaries below analyze the amounts received by the several partners on withdrawal as partners:

D Original capital		$100,000
¼ share of $100,000 profits		25,000
		$125,000
Less loss from selling interest below book value		9,000
Amount received by D		$116,000

C Original capital		$100,000
¼ share of $100,000 profits		25,000
⅓ share of $9,000 profit on D's withdrawal		3,000
		$128,000
Less withdrawal of profits	$10,000	
Less loss on sale of interest	8,000	18,000
Amount received by C		$110,000

B Original capital		$100,000
¼ share of $100,000 profits		25,000
½ share of $60,000 profits		30,000
⅓ share of $9,000 profit on D's withdrawal		3,000
½ share of $8,000 profit on C's withdrawal		4,000
		$162,000
Less withdrawal of profits	$10,000	
Less loss on sale of interest	12,000	22,000
Amount received by B		$140,000

A Original capital		$100,000
¼ share of $100,000 profits		25,000
½ share of $60,000 profits		30,000
Profits on withdrawal of others, D	$ 3,000	
C	4,000	
B	12,000	19,000
		$174,000
Less withdrawals of profits		10,000
Available for A		$164,000

It seems that A, taking a chance on the possibility of having his capital returned to him at the end of the business venture, has gained $19,000 as a result of the payment to D, C and B of amounts aggregating $19,000 below the book value of their respective interests. In other words, that amount has been gradually shifted to his account from the accounts of the other partners. The $19,000 is not profit of the business even at time of dissolution. It is entirely a profit of A's arising from dealings with his partners. From this point of view of the business, it is merely a transfer, of the right to claim existing earned profits, from one partner to the other or ner's interest is calculated, the ***original investment*** might be, and (after analysis) seems to be.

In the case illustrated, D was paid $116,000 for his original investment of $100,000 and surrender of all later claims against the accumulated profits. It seems that he withdrew his original capital and $16,000 of his share of accumulated earnings. This $16,000 does, in the final analysis, affect the accumulated earnings and assets of the business. It represents a completed transaction.

The whole series of transactions of the partnership can be summarized in this form:

	Investment	Net Increase in Net Worth accrued to date of withdrawal	Total book value	Withdrawals			Part of Net Worth not withdrawn
				Capital	Net Worth increments	Total	
D.....	$100,000	$ 25,000	$125,000	$100,000	$ 16,000	$116,000	$ 9,000
C......	100,000	18,000	118,000	100,000	10,000[1]	110,000	8,000
B......	100,000	52,000	152,000	100,000	40,000[1]	140,000	12,000
	$300,000	$ 95,000	$395,000	$300,000	$ 66,000	$366,000	$29,000
A......	100,000	64,000	164,000	100,000	64,000[1]	164,000	(29,000)
	$400,000	$159,000	$559,000	$400,000	$130,000	$530,000	—

[1] Does not include $10,000 in profits withdrawn by C, B and A respectively before their dates of retirement from the business.

others. A mere transfer of a right to accumulated profit does not create a profit. It creates no "addition to net assets." At dissolution, in the case at hand, A realizes the $19,000 personal profit only if the business can be sold for book value.

Therefore, it seems that a purchase of the full interest of a partner by the business for an amount less than the *book* value of such interest does not create a profit for the business. Similarly, it follows that a purchase of such interest for an amount in excess of book value thereof does not cause a loss to the business.

Although *book* value, then, seems not to be the base above or below which profit or loss to the business on retirement of a partner

Just after final disposition of net assets of the business at book value by A, a "single-entry" summary of results of the business would contain these items:

Net assets at the end....................			$164,000
Plus withdrawals by owners during life of the business	On withdrawal from business	As profits from time to time	
D..............	$116,000	—	
C..............	110,000	10,000	
B..............	140,000	10,000	
A..............		10,000	
	$366,000	$30,000	$396,000
			$560,000
Minus Investment at beginning..........			400,000
Net profit during the period..............			$160,000

This net profit of $160,000 is in agree-

ment with the algebraic sum of the profit-and-loss results of the several years the business was in existence as presented in the analysis of capital accounts, Illustration 1.

Year	Net Profit or Loss
First	$100,000
Second	none
Third	60,000
Total	$160,000

The $160,000 total of net profit-and-loss results for the several years does not contain any element of potential profit which might appear at first glance to have accrued to the business as the several partners D, C and B retired from the business. All such potential "profit" was realized by surviving partners from time to time. This is observed to be the case, by analyzing the amounts withdrawn by the several partners as they withdrew from the business, as shown in the following table:

not to the business. B made a net loss on withdrawal of partners, losing $12,000 on his own withdrawal or at least suffering a diminution of that amount in his share of the profit; but temporarily gaining $7,000 (through proportion of net worth) as a result of retirement of C and D. Similarly, C realized a net loss (or diminution in profits) of $5,000 and D $9,000 as a result of the withdrawal from the business of the three partners.

Assume a corporation under similar conditions except that A, B and C have a combined investment of $300,000 as common stockholders and D has $100,000 investment as a preferred stockholder. The preferred stock is called at a premium of $16,000 at the end of the first year. The common stock held by C is retired at the end of the second year for $110,000 and that held by B, at the end of the third year for $140,000. The business is later dissolved by A as the surviving stockholder(qualifying stock-

	A	B	C	D	Total
Profit first year	$ 25,000	$ 25,000	$ 25,000	$ 25,000	$100,000
Profit third year	30,000	30,000	—	—	60,000
	$ 55,000	$ 55,000	$ 25,000	$ 25,000	$160,000
Less withdrawal of profits second year	10,000	10,000	10,000	—	30,000
Total business profits available for withdrawal by partners on retirment	$ 45,000	$ 45,000	$ 15,000	$ 25,000	$130,000
Share of net worth transferred to (and surrendered by) partners on withdrawal of					
D	$ 3,000	$ 3,000	$ 3,000	($9,000)	—
C	4,000	4,000	(8,000)	—	—
B	12,000	(12,000)	—	—	—
Net profit or loss realized by ***individuals*** as a result of realization (or surrender) of proportion of net worth on withdrawing from the business	$ 19,000	($5,000)	($5,000)	($9,000)	—
Net profit from all sources withdrawn by partners on retirement from the business 1+2	$ 64,000	$ 40,000	$ 10,000	$ 16,000	$130,000
Original capital withdrawn	100,000	100,000	100,000	100,000	400,000
Total withdrawn on retirement per original analysis Illustration 1	$164,000	$140,000	$110,000	$116,000	$530,000

The analysis above shows that the amount of $19,000 is a profit to A only and holders' interests are ignored). The summary of transactions follows:

Illustration 2

	Net Assets	Common Stock par	Preferred Stock par	Surplus
Original Investment	$400,000	$300,000	$100,000	—
Profit 1st year	100,000	—	—	$100,000
	$500,000	$300,000	$100,000	$100,000
Paid to D (preferred stockholder)	116,000	—	100,000	−16,000
	$384,000	$300,000	—	$ 84,000
Dividends declared for 2nd year	30,000	—	—	−30,000
	$354,000	$300,000	—	$ 54,000
Retirement of C's stock end of 2nd year	110,000	100,000	—	−10,000
	$244,000	$200,000	—	$ 44,000
Profit 3rd year	60,000	—	—	60,000
	$304,000	$200,000	—	$104,000
Retirement of B's stock end of 3rd year	140,000	100,000	—	−40,000
End of 3rd year corporation dissolved at book value	$164,000	$100,000	—	$ 64,000

A gets $164,000 calculated as follows:

Original Investment		$100,000
Plus profits		160,000
		$260,000
Less Dividend	$30,000	
Less withdrawal of profits by D, C and B	66,000	96,000
		$164,000

Comparing the results of the withdrawals of stockholders (Illustration 2) with those associated with the withdrawals of partners (Illustration 1), the following observations are made:

1. The net assets of the business are the same in both cases at the time A is left as the sole owner, namely $164,000.

2. On final dissolution of the business A gets $100,000 original investment and $64,000 accumulated profits.

3. D, C and B on retiring withdrew $66,000 in profits but that amount was $29,000 less than their combined share of profits at the time of withdrawal.

In Illustration 3, it is assumed that the preferred stock was originally sold at a premium of $10 a share and was retired later at an amount above the $110 original investment (retirement basis $116 per share).

In this case, A gets $174,000 on final dissolution of the business, or $10,000 more than he received when there was no paid in surplus. This is made possible by D's withdrawing only $6,000 more than he invested compared with $16,000 more in Illustration 2. Naturally, in this last assumption, D withdrew less of his share of earnings of the business than he did formerly. If he had been paid for his preferred stock, $110,000 original investment plus $16,000 share of earnings, the final result would have been the same as in Illustration 2.

In both cases in which the corporate form of organization is assumed (Illustrations 2 and 3) the stock certificates are acquired and cancelled, and no new ones are issued in lieu thereof. It seems, therefore, that the transactions are completed ones. There is no necessity for waiting until some subsequent transaction arises following that in which one of the stockholders is

ILLUSTRATION 3

	Net Assets	Common Stock par	Preferred Stock par	Paid in Surplus	Earned Surplus
Original Investment	$410,000	$300,000	$100,000	$10,000	—
Profit 1st year	100,000	—	—	—	$100,000
	$510,000	$300,000	$100,000	$10,000	$100,000
Paid to D (preferred stockholder)	116,000	—	100,000	10,000	6,000
	$394,000	$300,000	—	—	$ 94,000
Dividends declared 2nd year	−30,000	—	—	—	−30,000
	$364,000	$300,000	—	—	$64,000
Retirement of C's stock end of 2nd year	110,000	100,000	—	—	10,000
	$254,000	$200,000	—	—	$ 54,000
Profit 3rd year	60,000	—	—	—	60,000
	$314,000	$200,000	—	—	$114,000
Retirement of B's stock end of 3rd year	140,000	100,000	—	—	40,000
	$174,000	$100,000	—	—	$ 74,000

paid for surrendering his stock. In Illustration 2, where the stock of D, C and B is retired at more than par but less than book value, surplus is decreased by the amount of the redemption price in excess of par. Such excess is considered a withdrawal of part of the accumulation of earnings and is, therefore, treated as a charge against earned surplus.

For the purpose of studying the results when the capital invested is greater than par (that is, when paid-in surplus exists), Illustration 3 is based on the assumption that there is $10,000 paid-in surplus, resulting from the sale of the preferred stock at a premium of this amount. Otherwise, the facts are the same as in Illustration 2. On retirement of the preferred stock it seems correct to charge paid-in surplus with any excess of purchase price over par. Such excess payment to a stockholder is thus properly shown as a return of original investment (par and surplus). Any amount above the paid-in capital and surplus is charged to surplus (earned). The transaction with the stockholder or stockholders concerned has been completed and there is no longer any reason for retaining the capital equity in special earmarked accounts.

These analyses point to the conclusion stated in the beginning, that "premium paid upon the redemption of an entire issue of preferred stock is properly chargeable to earned surplus to the extent that the total premium paid exceeds the amount of premium paid in to the issuing corporation on the same issue of preferred stock at the time it was issued."

It should be observed that this opinion deals only with the case in which an "entire issue" is redeemed. This feature is important in the conclusion which is based on the "completed transaction" theory, and which does not require consideration, therefore, of purchase of parcels of stock which might be treated as treasury stock until disposed of at some later time. Such purchases do not complete any transactions and, therefore, would not be susceptible of the interpretations contained in the illustrations given herein.

The test being the "completed transaction" it seems logical to say that surplus arising from appraisal of fixed property is not earned surplus until the transaction has been completed by a bona fide sale at arm's length of the property thus appraised. Similarly, as previously stated,

the issuance of stock at a premium is not a completed transaction until the shares are reacquired and the capitalization reduced. The purchase of treasury stock at a discount is not a completed transaction.

The question under consideration does not deal with the treatment of discount on preferred stock when an entire issue is redeemed at a discount. Accordingly, no comment is made on that phase of the subject.

The ideas expressed herein have dealt with stock with par value. The same conclusion would apply to no-par preferred stock except that stated value would be substituted throughout for par value.

BOND DISCOUNT AND DEBT EXPENSE IN TERMS OF CONSISTENT ACCOUNTING

WARNER H. HORD

THIS paper is concerned less with what actually constitutes common accounting practice than with the soundness of the accounting basis upon which such practice rests. Undoubtedly there are those who would prefer the plural—bases—in the belief that no one basis can ever explain the whole of accounting practice. Such reasoning, however, appears to place the cart before the horse, as it is tantamount to making current practice—though admittedly contradictory and heterogeneous—the acid test of any accounting basis which may be advanced. Furthermore, there is grave danger that a multi-basis approach is but a twist of logic by which individual judgments, based on circumstances wholly foreign to pure accountancy, are substituted for accounting control. Actually, it appears literally impossible that a multibasis accountancy can ever establish effective control over business reporting in opposition to contradictory non-accounting judgments based on apparently urgent financial expediency, legal prudence, or business policy. This is all the more apparent when it is realized that many of the individual bases within the multibasis of accounting practice were dictated by circumstances from without rather than by controls from within accountancy itself.

In conformance to these precepts, the discussion of the subject—Bond Discount and Debt Expense—will be broken down into the following steps:

1. The development of the accounting basis to be used as a standard of judgment.
2. The analysis of bond transactions in terms of this standard.
3. The application of this analysis in determining the accounting procedures necessary to reflect the true effects of the bond transactions.

THE ACCOUNTING BASIS OF CONTROL

The accounting basis to be used in this paper consists of two simple principles:

1. The use of transaction price as the measure of the monetary flow of property costs in actually executed business transactions.
2. The use of the principle of equated asset and equity elements in each property to identify the dual accounting aspects of all properties admitted to or released from the accounting entity through business transactions.

Through the application of this accounting basis, it is believed, the measure of the monetary flow of property costs in actually executed business transactions is governed by principle rather than by the

bookkeeping rule of equal debits and credits.

Illustrations will now be presented in an attempt to explain the nature of the operation of this basis of control.

THE ACCOUNTING BASIS

Illustration No. 1:—Different Effects Reported For Exactly Similar Transactions

Assume that A and B decide to put up equal amounts for the purchase of mineral lands priced at $40,000. Then compare the reported effects of identical transactions under two different forms of legal ownership:—as tenants in common, as stockholders of a corporation:

AS TENANTS IN COMMON*				AS STOCKHOLDERS OF A CORPORATION**			
Transaction: Purchase of land by A and B for $40,000.				Transaction: Organization of corporation by A and B with invested capital of $40,000 and purchase of land by corporation at $40,000.			
Land	$40,000	A (½)	$20,000				
		B (½)	20,000				
	$40,000		$40,000	Land	$40,000	Capital Sotck	$40,000
CASE I: Assume B's interest purchased for more than cost to him							
Transaction: A purchases B's interest for $30,000.				Transaction: Corporation purchases B's stock for $30,000, financed by issue of new stock to A at par, $30,000.			
				Land	$40,000	Capital Stock	$50,000
						Less Deficit	10,000
Land	$50,000	A	$50,000		$40,000		$40,000
CASE II: Assume B's interest purchased for less than cost to him							
Transaction: A purchased B's interest for $10,000.				Transaction: Corporation purchases B's stock for $10,000, financed by issue of new stock to A at par, $10,000.			
				Land	$40,000	Capital Stock	$30,000
						Surplus	10,000
Land	$30,000	A	$30,000		$40,000		$40,000

* Reported in accordance with the effects of the transaction.

** Reported in accordance with current corporate accounting practice.

There can be little doubt that, in Case I, the $50,000 is the correct figure at which to report the property owned by tenant A. This was the actual and only cost of the property to A. Similarly, there can be little doubt that $30,000 is the correct amount at which to report tenant A's property in Case II. In this case also, there is no other cost basis for reporting an alternative amount. It appears to follow, therefore, that either the mere legal form through which people associate themselves in business enterprise can change the economic and financial effects of the transactions by which they exchange properties, or else, that the corporate reporting is itself in error. But, if it be assumed that the economic and financial effects of a business transaction can be changed by the legal nature of the parties involved, then, it appears axiomatic that transaction price can have little validity as an independent measure of economic values exchanged in commercial enterprise.

Thus, a dilemma presents itself, either alternative of which is in direct conflict with generally accepted accounting practice. This is true because, if transaction price as a measure of economic goods exchanged is not independent of the parties to the transaction, then the very basis of accountancy, namely, the economic independence of the business transaction, is invalid and unreliable. If the economic independence of the business transaction be granted, then corporate accounting for transactions in the corporation's own equities is in error. The evidence, it appears, abundantly supports the latter position.

In Case I, so far as current accounting practice is concerned, stockholder B withdrew \$30,000 as his share of the total corporate property, while in Case II the amount was \$10,000. B had invested \$20,000 as his share of the total corporate property in each case. No profits or losses had been incurred by the corporation by which to change this amount. An exactly similar illustration would be that of a bank taking \$20,000 of deposits from a customer and then paying him \$30,000 in Case I or \$10,000 in Case II in liquidation of the account. These effects are unrealistic and illusionary. They simply cannot be produced by competitive transactions in which the parties deal at arms length.

The assumption underlying current accounting practice in reporting these transactions appears to be that, in Case I, the corporation paid a reward of \$10,000 to get rid of stockholder B, while, in Case II, stockholder B paid a reward of \$10,000 to get rid of the corporation. But obviously these are not the facts. What actually happened is, that B withdrew his share of the total corporate property as measured by the relation of his \$20,000 investment to the total capital stock. The cost of this property to the corporation was \$20,000 but, in Case I its current market price was \$30,000. Now, it should be apparent, that B cannot realize the \$10,000 profit by merely withdrawing his property from the corporate entity; instead, the profit can be realized only by an actual sale of the property at the current market price. It is also apparent that B's corporate property did not consist of cash, as the corporation had no cash until after the issue of new stock to A. The true effect of the transaction, therefore, must be the purchase by A of B's one-half interest in the mineral lands through the fictitious legal device of corporate entity.

The fallacy in current accounting practice lies in the confusion of current market price with the cost or carrying basis of the property. Though such confusion in other phases of accounting practice is one of the worst of accounting sins, it is here the almost universal rule of practice and is further dignified by inclusion in the phrase "generally accepted accounting principles."

Accountancy must be concerned, not merely with the flow of cash, but with the flow of all property in actually executed business transactions. In Case I, the \$10,000 excess price over cost had never been admitted to the accounting entity and, therefore, was not available to the accounting entity for distribution to stockholder B. In Case II, the retirement of B must have constituted a withdrawal of his entire invested property, thus, leaving no part of B's property available to the accounting entity for distribution to the other stock equities. In other words, no property may be distributed in retirement of an equity which, at a prior date, has not been admitted by the accounting entity as a credit to such equity; and conversely, no property may remain undistributed which, at a prior date, has been admitted by the accounting entity as a credit to the equity retired.

Actually, the cash involved in the re-

tirement of B's equity came into the picture only as a medium of exchange by which to measure the market value of B's invested property and provide a basis for settlement without actual division of the corporate property. Hence, B's corporate property was not actually withdrawn, but rather, it was purchased by the corporation on exactly the same basis as the land was purchased, in the first place, from the original owners.

The true accounting nature of the transaction between the corporation and stockholder B may now be described as follows: First, a constructive withdrawal by B of his one-half interest in the total corporate property; secondly, the reduction of this property to a price basis and the settlement in cash. Hence, there really were two complete transactions instead of one:

1. A dissolution transaction, by which stockholder B constructively withdrew his undivided interest in the total corporate property from the corporate entity.
2. A purchase transaction, by which the corporation bought stockholder B's undivided interest in the total corporate property at the market price fixed in relation to his stock and paid this price in cash.

It follows, therefore, that accounting asset and equity elements are simply different aspects of a single property capable of being the subject matter of a business transaction.[1] The identified asset or equity element of the property in a business transaction is simply the means by which to identify the carrying basis of this property within the accounting entity. *It makes no difference whether a business property is disposed of by means of a transaction involving an identified equity or an identified asset element of this property; in either case the disposition of the property must be followed by the complete removal of the carrying basis of the property from the accounting entity.*

The differences in the effects of the proposed procedures and those of current accounting practice become immediately evident from Illustration No. 2.

Thus the accounting basis of control resulting from the flow of property in actually executed equity transactions may now be summarized as follows:

1. The constructive withdrawal from the corporate entity of the stockholder's undivided interest in the total corporate property terminates the accounting carrying basis of such property. It is only by this procedure that accounting recognition can be given to the constructive but, nevertheless, factual dissolution of the corporate property by means of which a basis was created for the cash price settlement transaction through which the dissolution was completed.
2. The stockholder's undivided interest in the total corporate property must be removed from the accounting entity at its full carrying amount, the same as for any other property disposed of by the corporation.
3. The carrying amount of such property is fixed by the book value of the identified equity element attaching to the stock being retired.
4. Since every property must have accounting asset and equity elements of exactly equal amount, it follows that the reduction of the assets must be of exactly the same amount as the reduction of the equities.
5. The settlement transaction by which the stockholder's undivided corporate property is purchased at the market, returns this property to the accounting entity and the price paid becomes its new carrying basis. It must be emphasized that the lack of any visible separation of the property, in the dissolution transaction, can in no sense be interpreted to mean that there was no actual economic and accounting separation of the costs of such property. This is apparent when it is realized that accountancy is concerned with the monetary flow of corporate property costs rather than with the actual flow of the property itself.

These same principles, though developed in relation to transactions involving networth equities, are nevertheless,

[1] The term "property" as used throughout this paper always implies an accounting asset and equity element of equal amount.

Illustration No. 2—Corporate Reports Made to Report True Effects of Transactions

CASE I: PURCHASE OF B'S INTEREST FOR MORE THAN COST

PROPOSED PROCEDURE

Journal Entry

Cash	$30,000	
Capital Stock		$30,000
Issue of new stock to A		
Capital Stock	$20,000	
Assets (Unascertained)		$20,000
Constructive Dissolution		
Assets (Unascertained)	$30,000	
Cash		$30,000
Purchase Transactions		
OR		
Capital Stock	$20,000	
Assets (Unascertained)	10,000	
Cash		$30,000
Combination Dissolution and Purchase Transactions		

Balance Sheet

Land	$50,000	Capital Stock	$50,000

CURRENT PRACTICE

Journal Entry:

Cash	$30,000	
Capital Stock		$30,000
Issue of new stock to A		
Capital Stock	$20,000	
Surplus (Deficit)	10,000	
Cash		$30,000
Purchase of stock		

Balance Sheet

Land	$40,000	Capital Stock	$50,000
		Deficit	10,000
	$40,000		$40,000

CASE II: PURCHASE OF B'S INTEREST FOR LESS THAN COST

PROPOSED PROCEDURE

Cash	$10,000	
Capital Stock		$10,000
Issue of new stock to A		
Capital Stock	$20,000	
Cash		$10,000
Assets (Unascertained)		10,000
Combination Dissolution and Purchase Transactions		

Balance Sheet

Land	$30,000	Capital Stock	$30,000

CURRENT PRACTICE

Cash	$10,000	
Capital Stock		$10,000
Issue of new stock to A		
Capital Stock	$20,000	
Cash		$10,000
Surplus		10,000

Balance Sheet

Land	$40,000	Capital Stock	$30,000
		Surplus	10,000
	$40,000		$40,000

equally applicable to transactions involving bond equities. The accounting problem in both cases is simply to measure the monetary flow of property costs resulting from equity transactions, and therefore, is wholly independent of the legal nature of the equities involved.

ANALYSIS OF BOND CONTRACTS

A bond contract is simply a legal instrument through which to consummate certain types of investments in business enterprises. Both the amounts and the terms of the contract set forth the standards for future performance rather than the facts of current operations. The legal contract is completely drawn up before the completion of any business transactions which can give the bonds accounting significance. Hence, it may be said that the legal phases of a bond contract in general set forth three things: 1, the right of the corporation to issue bonds in investment transactions; 2, the operating rights of the parties during the period of the investment; 3, the provisions for the termination of the investment. All these legal provisions of the bond contract are determined prior to the consummation of the actual investment transactions; they become binding only after the completion of the investment transactions; and they describe conditions of performance subsequent to the execution of the investment

transactions; but they, in no sense, control or attempt to control the exact amount of the investment itself.

It is evident, therefore, that the face amount of a bond contract in no sense fixes the actual amount of property invested in the business. Instead, the monetary amount of the property investment is fixed by the net proceeds to the corporation from the sale of the bonds. Since the asset cash is the identified element of the property received through the bond sale transaction, it follows from the principle of equated asset and equity elements, that the amount of the equity attaching to this same property is equal to the cash received. Since the price of the invested property at the maturity date of the bond is legally fixed at the face amount of the bond, it follows that the transaction price at which the bond was issued also determines the rate and total amount of interest to be paid to the bond-investor. This, therefore, provides the necessary information for the accounting operations.

ACCOUNTING FOR BOND TRANSACTIONS

The accounting for the issue of bonds may be divided into three cases which will now be considered:

Case I: *Bond is issued at par:* The universal agreement as to methods makes consideration of this case unnecessary.

Case II: *Bond sold at a discount:* Since the property invested is measured by the identified cash asset element, the accounting entry would be to debit the cash asset and credit the bond equity for the amount of cash received. If desired, the bond equity may be credited for the face amount of the bond, with an offsetting debit to bond discount for the difference between the face of the bond and the cash received. The bond discount, however, would be considered a liability valuation account rather than a deferred charge. It follows, of course, that, as a valuation account, bond discount may not be deducted from the networth equities through a direct charge to surplus.

However, it is proper to amortize the bond discount over the life of the bond issue, since this simply amounts to grouping the equities of new properties acquired from the operations of the business in accordance with the legal provisions in the contracts of investment for the division of profits. Thus bond discount represents the profits to be accrued to the bond equity and distributed to the bond-investor upon the termination of his contract rather than periodically during its life.

Case III: *Bond is sold at a premium:* The accounting for bond premium is based upon exactly similar premises as that for bond discount. But in case of premium, the property invested is greater than the face of the bond. This difference, nevertheless, is a bond equity and not a capital stock equity. To close bond premium into surplus is to assume that the bond-investors have made a capital contribution to the stock-investors, which is not supported by the effects of actually executed business transactions. It is proper to amortize the bond premium over the life of the bond issue since this amount of the invested property will be distributed to the bond-investor as a part of the periodic interest payments. But the premium either must be set up as bonds payable or, if separated as bond premium, it must be included as one of the group of bond payable equities.

BOND RETIREMENT TRANSACTIONS

The final matter for consideration is the accounting for bond retirement transactions. As before the flow of property costs in actually executed business transactions will be used as the basis of accounting control. Since there is a face amount, a carry-

ing amount, and a transaction price for bonds retired, and since they may be retired before or at maturity, this discussion could be broken down into many individual cases. As helpful and interesting as such discussion would be, it is beyond the time limits of this paper.

The operation of the transaction basis of accounting control in relation to bond retirement transactions may be summarized as follows:

1. That a bond retirement does constitute a disposition of business property and, though not a dissolution of the legal corporate entity, it is, nevertheless, a dissolution of the accounting entity which embraces the monetary costs of the asset and equity elements of all the corporate property. Since the accounting entity is composed of the monetary costs of the business properties, it follows, that accounting dissolution must be a function of the actually executed business transactions by which these costs are changed.
2. A dissolution transaction constitutes a distribution of property to the corporate investor whose carrying amount within the accounting entity is equal to the book value of the identified equity—in this case the bond equity. This distribution terminates the carrying basis, within the accounting entity, of the property so distributed.
3. The transaction price at which the bonds are retired constitutes the amount at which the undivided property interest of the bond-investor was purchased by the corporation in the purchase settlement transaction. Though from a legal point of view, such purchase transaction constitutes the payment of a debt, it is nevertheless impossible, from an accounting point of view, to purchase an equity without at the same time purchasing a component equated asset element, since accounting asset and equity elements cannot exist except in equated pairs constituting a business property.

The application of these principles of control to bond retirement transactions will produce the following effects:

1. The distribution, through the dissolution transaction, of the corporate property to which the bond equity attaches, will reduce both the accounting asset and equity elements by an amount equal to the carrying basis of the identified bond equity retired. (The carrying basis is the face of the bond less any unamortized discount or plus any unamortized premium.)
2. The purchase transaction, by which the dissolution is completed, simply returns the bond-investor's undivided interest in the corporate property to the accounting entity and fixes its new carrying basis at the amount of the purchase price. This is simply the exchange of one property for another in a purchase transaction, thus leaving the amount of the total asset and equity elements unchanged.

It is apparent, then, that if the bond is retired at maturity the legal price, as fixed by the face of the bond, and the carrying amount of the property to which the bond equity attaches will be identical. In this case the cash paid is equal to the carrying amount of the property distributed or withdrawn, and hence, may be considered as constituting that property. Thus the payment of a bond at maturity may be considered as involving only a dissolution transaction as a result of which an invested property is withdrawn from the accounting entity at its carrying amount. But if the retirement takes place prior to maturity, it would be pure accident if the price and carrying amount were identical. In case of a difference, the cash price is the new purchase cost to the corporation of the property constructively withdrawn by the bond-investor and subsequently sold back to the corporation as a result of the cash purchase transaction. The cash price, therefore, measures the carrying basis of the property acquired, while the book amount of the bond equity measures the carrying basis of the property distributed.

Thus, if a \$100,000 bond issue which had been sold at par were retired for \$70,000, the \$30,000 difference between par and the cash paid would be deducted from the assets, thereby equating the asset

reduction with the equity reduction. Strangely enough this procedure is allowed for income-tax purposes under Section 22 (b) (9) of the 1939 Internal Revenue Code. Perhaps this is a case in which the government program of business appeasement accidentally adopted good accounting principles in granting tax relief.

Since every bond retirement results in the disposition of a property with asset and equity elements each equal to the carrying amount of the retired bond equity, this basis of accounting leads to two other important corollaries:

1. That no profit or loss can be realized by the issuing corporation from a bond retirement transaction.
2. That, since bond discount and premium are simply valuation accounts, they must be terminated with the retirement of the bonds to which they attach. There is no more accounting justification for carrying these items beyond the retirement of the bonds than for carrying a depreciation reserve after disposing of the asset to which it attaches.

The accounting basis of control outlined in this paper may be generalized as follows:

1. The accounting asset and equity elements are simply two different aspects of a single business property.
2. Any property disposed of by an actually executed business transaction must always have a carrying basis within the accounting entity consisting of equated asset and equity elements.
3. The carrying amount of both the asset and equity elements of the property subject matter of a business transaction must always be equal to the element of the property identified in the transaction.
4. All properties disposed of, whether through transactions involving identified asset elements or transactions involving identified equity elements, must be completely removed from the accounting entity at their current carrying amount.
5. The difference between the carrying amount of an identified element of the property and the transaction price represents the amount of the adjustment in the unidentified element necessary to remove from the accounting entity the complete carrying basis of the property parted with. Thus, the excess of the price over the carrying amount of an identified asset element is an addition to the equities; while the excess of the price over the carrying amount of an identified equity element is an addition to the assets.

Perhaps it may be well to point out, in concluding, that this accounting basis establishes exactly similar principles of control for both the asset and equity sides of the balance sheet, whereas, in current accounting practice, the principles of control underlying the two sides of the balance sheet are directly contradictory, unless the bookkeeping rule of equal debits and credits be considered a principle of control.

FIXED AND VARIABLE COSTS

Robert L. Dixon, Jr.

In the recent monograph, *Financial Statements*, of the American Accounting Association, Mr. Daniels describes the model or typical income statement by presenting a composite of the arrangements most frequently used. With respect to the typical operating section the following description is noted: "Operating expenses are not classified, except that the amounts of depreciation, depletion, and amortization charges are shown. Whether these items are regarded as operating expenses or as income deductions is not clear" (p. 113).

The two important points in the quotation are, first, the lack of classification of

expenses, and second, the separate indication of depreciation and similar charges, either by actual segregation or by footnote disclosure.

At an earlier point in the monograph the separation of depreciation and similar charges is criticized, particularly because some sort of an intermediate balance of revenue is often shown: "There is an unfortunate tendency to show a balance of revenue after deducting all operating expenses except depreciation and depletion. About three of every five statements show a figure for operating income before deducting depreciation; one of five opens with such a figure. Two of every five statements clearly show depreciation, depletion and amortization of intangibles as operating expenses" (p. 111).

From this brief description, and from a general acquaintance with published statements, one may reasonably conclude that the operating section of the income statement is not particularly useful as far as statement analysis is concerned. It would seem, however, that this particular section actually represents the very heart of the statement; that it should provide information of real value to the reader; and that the form of presentation should be such as to emphasize any relationships which are significant, just as such relationships are emphasized in a well-constructed balance sheet.

Practically any proposal which provides for a more enlightening operating section is obstructed by reluctance on the part of the corporation management to reveal any detailed operating figures. The question is then, would it be possible so to arrange the presentation of operating data as not to reveal the confidential details, and at the same time provide the analyst with a classification of expenses which is subject to reliable analysis?

The proposed answer to this question is along the lines of fixed and variable cost separation. Such classification has been used to a considerable extent in the field of cost accounting. For example, in determining the relative profitability of individual departments within a business, attention is focused upon those costs which vary more or less directly with the output or activity of the particular department. The measure of accomplishment is not the net profit earned by the department after all costs, both variable and fixed. The significant figure is the department's contribution to general overhead; that is, the balance of revenue after deducting those variable costs which are actually *caused by the operations for the period*. If departmental efficiency rather than profitability is being studied, it is proper to direct attention primarily to those costs which are not only variable but which at the same time are subject to some degree of control by the department head. Such analyses are then used as the basis of plans for reallocating building space, or for expansion or discontinuance of certain departments.

The net contribution to overhead is considered to be a very significant figure. It measures the earning power of departmental operations and at the same time constitutes an index of the effectiveness of the management of the department, particularly when considered with relation to fixed charges and with relation to the fixed capital investment at the disposal of the department.

It is proposed that a somewhat similar classification of costs be used in the operating section of the income statement. The arrangement would consist in showing net sales followed by a deduction labelled "Variable costs of sales." The balance resulting after the deduction of variable costs could then be called "Net gain or loss from operating during the period." Strictly speaking, such a balance would indicate the net gain or loss from *operating*

as compared with ***not operating*** at all during the period. Because the term "Net gain or loss from operating" involves some misleading implications, it would probably be better to use the term "Balance of revenue after variable costs."

It is believed that the so-called "Balance of revenue" would constitute, more accurately than any other figure, an important measure of the effectiveness of the management for the period. The management has at its disposal land, buildings, and other fixed assets as well as intangible assets. Such facilities, no matter how modern or expensive, are valuable only to the extent that the management utilizes them effectively. With the more or less inflexible structure of fixed assets once established, profits are available only through the wise incurrence of variable costs. It is the variable costs, in other words, which make the business run; and the relationship between such variable costs and the revenues obtained constitutes a good index of the degree with which the management is utilizing effectively the established plant facilities which have been placed at its disposal.

The question as to what costs should be included in the variable group is not easily solved. It is believed that the preliminary answer might be that the variable group should include all costs other than those which would be incurred during a period in which the firm is shut down. This solution is subject to question, however, because the level of costs incurred while a firm is not operating depends to some extent upon the expected length of the shut-down period. For example, the shut-down costs during a period of temporary idleness, perhaps a month, will be relatively much higher than those of a period which is so long that the plant is boarded up and all of the employees, with the exception of a minimum crew, are discharged. In determining what costs shall be classed as fixed, some sort of a hypothetical shut-down period must therefore be established. In a given case the probable correct answer would be that the hypothetical shut-down period should coincide with the period covered by the statement. Thus, an income statement covering one month would show a relatively large share of the costs classed as fixed, while a statement for the entire life of the business would show all costs as variable. It is doubtful, however, that the use of hypothetical shut-down periods of varying lengths could be adopted in actual practice, since the resulting shut-down cost estimates would depend too much upon rough approximation rather than upon observable accounting rules. Furthermore, the summation of four quarterly statements would not be comparable with a statement for the year as a whole. It is therefore believed that as a practical matter "shut-down costs" should refer to those costs which would continue to be incurred if the concern were in a dormant state with no immediate prospects for renewed activity.

The presentation of the operating expense section of the income statement in accordance with the suggested classification involves no difficult problems as to form. Typically we now find a single figure labelled "Cost of sales, including selling and administrative expenses." If no further details are to be given this figure may simply be divided into two parts with the first part called "Variable manufacturing, selling, and administrative expenses." After deducting this amount from net sales the next deduction might be labelled "Fixed manufacturing, selling, and administrative expenses." It would, of course be, quite possible to prepare a detailed operating expense section by establishing vertical columns for the classification of individual costs as "selling expenses," "administrative expenses," etc., with a

horizontal division maintained between the variable and fixed costs.

Assuming that statements were to be published with the operating costs divided into the two suggested groups, in what respects would the form possess added usefulness?

In the first place, the ratio of variable costs to net sales would be ascertainable. This ratio would be a useful one for the comparison of one industry with others. It would likewise be useful when considered over a period of years with relation to a single firm and would provide some indication of that firm's future possibilities, particularly when compared with similar ratios and trends for other firms in the same industry. The ratio would tend to indicate the degree with which an individual firm is maintaining or improving its competitive position. It is not intended that this particular ratio should be considered to the exclusion of other pertinent factors. Ratio analysis is in all cases subject to grave criticism when considered an end in itself rather than as a part of a broad process.

In the second place, the proposed statement form would be useful because it would show the balance resulting after deducting variable costs from net sales, which balance would have a reasonably uniform meaning among all firms and industries. The income statement which now shows a gross profit figure after deducting "Cost of goods sold" has quite properly been criticized on two grounds: Cost of goods sold, or merchandise cost of sales, has no unique significance as compared to other variable costs, and a so-called "Gross profit" balance has, accordingly, no demonstrable merit. In fact, the use of the term "profit" at this point is not only inaccurate but also misleading. Furthermore, so little uniformity exists in the determination of the cost-of-goods-sold figure that the balance, or gross profit figure, has little value for comparative purposes. If, however, *all* variable costs were deducted before a balance is indicated, it is maintained that uniformity of treatment could be obtained. Such variable costs for a given period would have a separate significance, as would the balance resulting after they are deducted.

In the third place, the statement would provide for the determination of the ratio between the fixed cost figure and the figure representing the balance of revenue after variable costs. For purposes of comparison this ratio would be a significant one. It would serve as an indication of the success of the management in making use of the business equipment, and the firm with the highest ratio would accordingly be given the highest rating, all things considered.

Fourth, the figure for fixed costs would serve as a measure of the size and expensiveness of the operating facilities of an individual firm. Presumably a large fixed cost figure could be justified only by a correspondingly large balance after variable costs. If the balance after variable costs is not correspondingly large the conclusion might reasonably be drawn that the firm is either operating with out-moded, costly assets, or is being ineffectively managed.

These four are the outstanding analytical aids which the proposed arrangement provides.

The small investor has little or no voice in the management of a large corporation. The only means which he has of choosing his management is by placing his investment with the already established management which appears to suit him best. In its present form the income statement helps very little in the solution of the problem, and the investor is forced to rely largely upon dividend records as a guide to his investment commitments. Reliable as dividend records might be, it is believed that the accounting reports should be of service in this connection. If accountants

are willing to spend considerable effort to make their statements "truthful," they might at the same time strive to make them more useful. As pointed out at the beginning of this paper, corporation statements are criticized because in the typical case the operating expenses are not classified. It is doubtful that anyone outside of the corporate management, and possibly the creditors, would be particularly interested in a detailed classification of such expenses. If, however, the expenses could be so grouped that the statement reader might be given some clue as to the operating efficiency of the firm, a clue more significant than the final net income figure on which he now must rely almost entirely, the statement might then be considered useful.

In considering the problem of the adoption of uniform accounting principles, it would seem that not enough attention is given to the matter of interpretative reporting. Once the bookkeeping principles have been established, the matter of preparing statements is of the utmost importance. An unwritten law in accounting is that the statements should report exactly what is in the ledger accounts. Under commonly observed accounting principles the resulting statements are useful not so much for what is contained in the body of the statement as for what is contained in the footnotes. It is suggested that it might be well to repeal the abovementioned law, and concentrate upon the preparation of reports which are suited to the individual needs of the persons to whom they are directed. The division of operating expenses into fixed and variable categories is suggested here only as one step toward making the income statement more useful, and it involves very little change from the statement form which is now being used in three out of five cases according to the quotation from *Financial Statements*.

A NEW FORM OF FUNDS STATEMENT

HARRY L. KUNZE

INCREASING use is being made of the so-called "Statement of Application of Funds." Some banks ask their borrowers to furnish them with such a statement. Accounting firms frequently include the statement in their reports, and some companies publish the statement in their annual reports to stockholders. Perhaps the value of the statement of funds can be greatly enhanced and its use increased by eliminating certain objectionable features from the form most commonly used, features which are discussed below.

The handling of the depreciation charge is often confusing not only to students but to others as well. It is generally shown as an addition to the profits in the funds provided section. Depreciation obviously does not provide funds for, on the contrary, it represents a loss of assets. Sales or other items of income bring in new assets. If a company has a net profit, then depreciation represents all or a part of the excess of income over the expenditures of the period which have reduced net working capital. This, though, is not clear to anyone who does not have a good knowledge of accounting. To such a person the statement seems to say that funds were brought into the business by the act of writing off the value of fixed assets. That the forms now in use can easily give such an impression constitutes a serious criticism of them. These forms frequently list depreciation under subtitles such as "non-cash charges," "Costs which did not require cash outlay,"

"Expense items not involving cash," etc. The reader may well conclude that depreciation is shown because it represents a non-cash charge against operations, but if that be the real reason, what about numerous other non-cash charges which are not so shown? Any company on the accrual basis would have a number of costs representing values consumed during the period which have not yet been paid for, such as: interest, rent, salaries, and similar items. It is not consistent to exclude these items if depreciation, on the grounds that it did not require a cash outlay during the period, is included in the statement.

A decrease in prepaid expenses is often shown in the funds-provided section. Ordinarily no explanation is given, and the reader may be led to believe that the consumption of these values brought in new assets. This would not be true except where these values entered into the cost of production. If a trading concern, for instance, has unexpired insurance on hand at the beginning of the period, the expiration of this value does not of itself represent a source of new assets. The sales of the company will be the chief source of new assets. It is only where, in an exceptional case, the insurance policy is cancelled and a portion of the premium is refunded that the unexpired value would bring in new assets.

The decrease in working capital is frequently shown as a funds-provided item, apparently on the theory that the excess of funds applied over the other items of funds provided came out of working capital to the extent of the decrease. That this is not always the case may be shown by considering a single item such as an instalment of a funded debt which becomes a current liability because of approaching maturity. The transfer from the fixed to the current section of the balance sheet would constitute a decrease in the working capital of the company. It is difficult to see how any "funds" were provided by this entry. Even though cash is taken out of working capital and applied to other sections of the balance sheet it is quite confusing to speak of this as providing funds. It seems to be a mere use of resources already provided.

Very often the change in working capital is shown in the statement of funds in a single figure, with this figure being supported by a complete schedule. This schedule may show the beginning and end balances of all current assets and liabilities. This is desirable where only the statement of funds is presented. In practice, though, it would generally be a supplementary statement. Where a comparative balance sheet is shown, it would seem advisable to prepare a summary of the working capital rather than to repeat the same information in the schedule of working capital.

Much of the confusion resulting from the commonly used forms is due to the title of the statement. The word "funds" has no definite or well understood meaning. It is much like the words "over-capitalization" and "under-capitalization" for which numerous definitions can be found. In the field of general industrial accounting the term "funds" is ordinarily used to describe cash or cash and securities. Some persons may quite naturally interpret the statement of funds to be a cash statement. To others it seems to include all assets. As shown above, the transfer of a fixed liability to the current section would appear as a "fund provided," so in that case the term "funds" apparently involves liabilities as well. Frequently the word "fund" is used to indicate assets set aside for a particular purpose. Its use in governmental and institutional accounting differs from that in industrial accounting. It would be well to avoid as far as possible a term which has so many meanings.

Before a really good form of funds statement can be developed it will be necessary

to come to an agreement as to what the statement is supposed to do. The theories as to the purpose of the statement may be classified into three types. According to these theories it represents a summary of:

1. Cash receipts and disbursements.
2. The flow of values through the working capital section of the balance sheet.
3. All changes in balance-sheet accounts.

If the first theory is correct the statement should be designated a cash summary and all non-cash items excluded. If the third theory is correct, that the statement summarizes all changes in comparative balance sheets, then the title should so indicate. The object of the statement seems, rather, to account for the changes in the current section of the balance sheet, by showing the ebb and flow of working-capital items. The following form is based on this theory and eliminates the objectionable features discussed above. In using for this article the title "A New Form of Funds Statement" there is no intention to imply that all parts of the form suggested are entirely new or original. Many writers have been dissatisfied with the commonly used form and some of their ideas are embodied in this so-called new form.

It may be noted that the word "funds" does not appear anywhere in the statement. The caption used is not likely to be misinterpreted and it states clearly what is contained in the statement. When the phrase "Application-of-Funds Statement" is used for the heading, not only is a confusing term used but only one of the two main sections is described. It would be just as logical to call an ordinary balance sheet a statement of assets. Statement headings should be fully descriptive of the data shown in the statements. The term "Working Capital" might have been used instead of "Net Current Assets" but that term, to some people, seems to mean current assets rather than the excess of current assets over current liabilities. "Net assets" is a term widely used to describe total assets minus all liabilities so it seems consistent to use "net current assets" for the excess of current assets over current liabilities.

The decrease in net current assets during the period is clearly shown. This decrease subtracted from the opening amount of net current assets accounts for the final amount. This is a simple and natural explanation as compared to the ordinary balanced form of funds statement where the decrease would be shown as providing funds. The form is essentially the same as that used widely in analyzing the surplus account. Accountants include similar analyses of other important accounts as a regular part of their audit reports. It seems that this form of statement is readily understood by the layman.

Summary of Changes in Net Current Assets for the Year Ended December 31, 19—

Net current assets, January 1, 19—			$420,000
Additions:			
Net sales and other income	$983,000		
Receipts from issuance of bonds	297,000		
Net proceeds from sale of fixed assets	46,000	$1,326,000	
Deductions:			
Current costs and expenses which reduced net current assets	$821,000		
Additions to buildings	400,000		
New machinery purchased	75,000		
Dividends declared	40,000		
Cost of treasury stock—50 shares	4,000	1,340,000	
Net decrease			14,000
Net current assets, December 31, 19—			$406,000

The puzzling depreciation charge and other similar items are not mentioned at all in the statement. Instead of starting with the net profit figure and adding back these charges, the main source of new assets (sales and other income) is shown and then their application to current costs and expenses. It should be clear to everyone who has some knowledge of business that net sales are first reflected in the current assets in the form of cash or receivables. In arriving at the current costs and expenses which have reduced net current assets, the accountant may deduct depreciation, patent write-offs, amortization of bond discount, etc., but these charges are omitted from the statement for the sake of clarity and brevity.

A schedule of current assets and liabilities should be available. These accounts would appear in detail in the comparative balance sheet where that statement is included in the report. If desired, a summary of current assets and liabilities could be presented immediately below the statement in support of the opening and closing amounts.

In conclusion it may be said that accountants are not in accord as to the content and arrangement of funds statements. The form suggested here is an attempt to improve that situation. As indicated above it is first necessary to decide what is wanted from the statement before a determination can be made on what to put into it. The point of view adopted in this paper is that the statement of funds is in reality a statement of the values which came into the current section of the balance sheet and what was done with these values. Changes in other sections of the balance sheet are brought into the statement only to the extent that they involved the working capital of the company. By showing the gross profit-and-loss figures which affect the net current assets, the statement is made more significant, and the awkward and confusing method of starting with the net profit and adding back depreciation and similar charges is avoided. To treat the net change in working capital simply as a difference between increases and decreases is much clearer than the treatment of the net change found in the balanced form of report. Finally, the heading of the statement should give the ordinary reader a good idea of what to expect in the body of the statement.

SHOULD OBSOLESCENCE BE SEPARATELY ACCRUED?

C. A. Moyer

Accountants are just beginning to develop a consciousness of some of the problems of obsolescence which are present in connection with the use of fixed assets. This paper is limited to consideration of only one question which arises—that of separate accrual. Other accounting problems which arise are relegated to the background as much as possible or are not mentioned at all.

Obsolescence has received little attention by accountants; in fact, early accounting literature did not mention obsolescence. In 1907 L. M. Dicksee expressed the accepted practice followed during most of the past several decades when he said that "if the general character of the business is such that the risk, if not serious, is at least conceivable, then naturally a more than ordinarily liberal rate

of Depreciation would be provided."[1] This tendency to combine with physical depreciation that obsolescence which has been accrued, has been prevalent in business since the presence of this factor has been recognized. The provisions of the income-tax laws since 1918 have popularized this practice. During the World War, the use of specialized machinery and equipment for manufacturing war supplies emphasized the importance of obsolescence to the individual taxpayer. Since such equipment obviously would be useless as soon as the War ended, the Act of 1918 provided "that in computing net income there shall be allowed as deductions: A reasonable allowance for the exhaustion, wear and tear of property used in the trade or business including a reasonable allowance for obsolescence."[2] This act permitted the accruing of so-called "normal or ordinary" obsolescence but provided a different treatment for "extraordinary" obsolescence.

The term depreciation was used originally to describe only the loss of value suffered by fixed assets because of "wear and tear" and physical deterioration from action of the elements. In its broad, non-technical sense, depreciation means loss of value resulting from *any* cause. Accountants and business men early attached a technical, limited meaning to the term, but later broadened the meaning to include functional factors as well as physical factors. In other words, accountants are apparently unconsciously approaching an acceptance of the broad interpretation of the term, rather than retaining its original use in accounting.

However, in this paper, in order to secure clearness of terminology, and for other reasons mentioned later, the term depreciation is used to describe only the physical factors which contribute to the retirement of fixed assets from use. The term obsolescence describes the functional or intangible factors which cause the permanent abandonment of fixed assets. Fixed assets are considered to be obsolete if they go out of use before the end of their potential physical life, because of changing economic or technical conditions. Depreciation, then, implies the gradual expiration or *consumption* of productive power, while obsolescence implies the *abandonment* of unused potential productive power. Stated in a little different manner, it might be said that the former represents the productive capacity *used;* the latter represents the productive capacity *not used*.

With this distinction in mind, let us proceed to an examination of the accounting treatment of obsolescence. First of all, an attempt should be made to arrive at a theoretical conclusion. It is granted that practical difficulties lead to modifications and the general adoption of certain expediencies, but practical difficulties should not be permitted to determine the theory. Principles, theoretically sound, should be applied as far as is practicable and should be modified as little as possible in their application to practical situations.

For purposes of analysis, at this point let us assume that all obsolescence and all depreciation can be exactly predicted. What then would be the treatment accorded obsolescence? If a manufacturer obtained equipment with a potential physical life of six years, but which he knew he was going to use for only two years, after which it would have no resale value, would he apportion the cost of the equipment over six years' or over two years' operations? If it be assumed that he can predict exactly the date and extent of the obsolescence, he should logically consider the cost price as an expired outlay of

[1] Dicksee, L. R., *Depreciation, Reserves, and Reserve Funds*, London: Gee and Co., 1912, p. 33.

[2] U. S. Treasury Dept., Bureau of Internal Revenue Service, *Regulations 45, Income Tax and War Profits and Excess Profits Tax*, Revenue Act of 1918, Washington: U. S. Govt. Printing Office, 1918, sec. 234 (a)-7, p. 142.

the two years' operations. The equipment represented by this outlay will be active during only two years' operations and will contribute toward production of a service or product only for that time. Hence, it would seem that the whole of the expired outlay should be recovered out of the income of the two years. For example, if the equipment mentioned above cost $6,000, and it was known that it would go out of use at the end of the two years with no salvage value, then the owner, realizing that the entire cost of $6,000 would expire at the end of two years, would allocate the expired cost to the output produced during the useful life of the equipment.

Under this assumption, obsolescence would certainly be accrued, but should it be separately accrued? As pointed out previously, depreciation represents productive capacity *used;* obsolescence represents productive capacity ***not used***. Because of this fundamental difference, it would appear theoretically desirable to separate the two. In practice, in those cases in which obsolescence has been accrued, it has been merged with the accrual of depreciation. Since both represent expired outlays occurring simultaneously in connection with the use of fixed assets, and, therefore, are difficult to measure separately, and since both should be considered as deductions from gross income, business practice has sanctioned the combining of the two. There has been evidence also, that corporations do not care to disclose in published statements the estimate of obsolescence which has occurred or which is likely to occur. These reasons, however, are all of a practical nature, and introduce no theoretical basis for the combination of these two factors.

If one of the functions of accounting is to furnish management with control information, then a distinction should be made in the accounts between depreciation and obsolescence. In the example given above, in which it was assumed that all obsolescence and all depreciation are predictable, of the original cost of $6,000 which expired in two years, $2,000 would represent depreciation and $4,000 would represent obsolescence. With this information available, more complete analysis of operating results would be possible, and management would be aided considerably in arriving at decisions which must be made in connection with the use of fixed assets.

Accounting, however, serves other purposes besides those of management. If the interests of creditors, stockholders, and the public, are to be protected, the full facts of depreciation and obsolescence must be clearly stated and understood. A misstatement of the facts, or concealment of impostant aspects of the use of fixed assets will probably result in injury to some interested group or groups. A separation of depreciation and obsolescence in practice as well as in theory, would be of advantage to these other interested parties, as well as to management. Thus, assuming that all obsolescence is exactly predictable, the separate accrual of depreciation and obsolescence would appear to be sound theory and desirable practice.

Now let it be assumed that obsolescence is entirely unpredictable but that depreciation is predictable; in other words, that every case of obsolescence appears at a specific moment of time without warning, and therefore with no indication in advance that there is any likelihood of a fixed asset becoming obsolete. In that case, it would be impossible to accrue obsolescence at all for there would be no means of making an estimate of any sort.

Under this assumption, depreciation and obsolescence would have to be separated for one would be accrued and the other would not. Depreciation would be shown as an operating cost and an allowance for depreciation would be periodically

deducted from income. Obsolescence, however, because it would be wholly unpredictable would have to be considered as a loss, properly chargeable to past operations.

Under each of the above two assumptions it seems proper and desirable to separate depreciation and obsolescence in the accounts, although in one case obsolescence would be accrued and in the other case it would not be accrued. It is true that neither of the situations examined is in accord with actual conditions, but some aspects of the question were subjected to analysis by excluding from consideration certain factors present under actual conditions.

In practice obsolescence is not exactly predictable nor is it entirely unpredictable. The income tax provisions have popularized the terms "normal" or "ordinary obsolescence" and "extraordinary obsolescence." The Bureau of Internal Revenue has defined normal obsolescence as "the process of becoming obsolete, brought about by the progress of the arts and sciences, changed economic conditions, legislation or otherwise, whereby it can be predicted with reasonable accuracy that property used in the trade or business will be useless at a definite future date prior to the expiration of the normal useful life of the property,"[3] while extraordinary obsolescence has been described as that due to "some unforeseen cause by reason of which the property has been prematurely discarded."[4] It should not be implied from the above statements that these two types are sharply different and separable, for as a matter of fact the two grade imperceptibly into each other.

Since the question of predictability arises in connection with the separate accrual of obsolescence, it may be well to examine this point briefly. Early accounting literature seemed to regard all obsolescence as unpredictable, for obsolescence was not mentioned at all. Several factors have tended to cause a change in this concept. Rapid advances in recent years in methods of manufacture and technique have brought about many changes which have caused obsolescence to occur frequently. As a result, the appearance of obsolescence has not been considered to be an unusual happening. In many industries, improved methods and improved machinery are introduced almost continuously and thus it may be assumed that obsolescence is a constantly recurring phenomenon.

In recent years, most of the large concerns and large industries have established permanent research staffs in order to seek improvements. Such improvements as are approved for practical development, however, can be withheld almost indefinitely and introduced when the time seems appropriate. Also, many manufacturers have bought up patents and inventions developed by individuals and thus controlled their use. Both of these conditions tend to make obsolescence more predictable because sudden changes are practically eliminated when such policies are followed.

Studies and analyses of property retirements by engineers and others have seemed to indicate that in most industries obsolescence can be predicted with a reasonable degree of accuracy.[5] In predicting certain occurrences, the ordinary procedure is to study a large number of cases, analyzing the results of the past in order to attempt a judgment of the future. Detailed studies of the life histories of fixed assets used over

---

[3] U. S. Treasury Department, Bureau of Internal Revenue, *Bulletin F, Income Tax, Depreciation and Obsolescence*, Revenue Act of 1928, Washington, D. C.: U. S. Govt. Printing Office, 1928, p. 2.

[4] U. S. Treasury Department, Bureau of Internal Revenue, *Regulations 45, Income Tax and War Profits and Excess Profits Tax*, Revenue Act of 1918, Washington, D. C.: U. S. Govt. Printing Office, 1918, sec. 234 (a)-7, p. 142.

[5] See studies by E. B. Kurtz, and the Iowa Engineering Experiment Station, for example.

a period of years, where complete records have been kept, would indicate the probable obsolescence of the future.

A study made recently disclosed the fact that there was an average lapse of 33 years between the "conception date" and the "date of commercial success" of an invention, and that it was "hardly possible to find an invention which became important in less than 10 years from the time it or some fully equivalent substitute was worked on, and few did it in less than 20."[6] Thus, it appears that new inventions are not as unexpected as is generally implied.

The above-mentioned statements tend to indicate that obsolescence is predictable to a much greater extent than is commonly believed. An application of scientific methods, construction of mortality tables of fixed assets, and full consideration of past trends and developments, coupled with a full realization of current conditions and influencing factors would assist in predicting obsolescence. It may be that a serious effort to predict obsolescence would disclose that there is comparatively little extraordinary obsolescence and that practically all obsolescence is reasonably predictable.

Ordinary obsolescence has usually been considered a cost of production, since it has been combined with the depreciation allowance. Obsolescence not anticipated in the depreciation allowance (extraordinary obsolescence) has been considered as a loss. This treatment, however, should be subjected to analysis.

A loss has been defined as "a disappearance of value without compensation. However, it is easier to define losses in general terms than to distinguish [them] precisely from expenses in specific cases. From the standpoint of a strict definition, considerable sums are expended by most enterprises that do not bring about any return or an adequate return."[7] This statement implies that, according to strict definition, all obsolescence would be considered as a loss. But the accountant's present-day concept of loss is modified from the above. "Assuming that costs are incurred in good faith and on the basis of average judgment and assuming that recognized technical standards are being maintained, there is no need of isolating a part of such cost as a loss, merely because conditions are not ideal. If on the other hand, gross inefficiency prevails, or unfortunate conditions of an extraordinary character obtain, it is obvious that losses are being suffered and it is desirable to separate such losses from ordinary operating charges."[8]

Obsolescence, then, being "a disappearance of value without compensation, would be a loss according to strict interpretation. However, normal obsolescence, because it is no longer considered as being due to "unfortunate conditions of an extraordinary character" is not separated from ordinary operating charges. Instead, as a practical expedient, in accord with the modified definition given above, it has been merged with the depreciation charge, even though it is different in nature. Although the income-tax law has no doubt encouraged this practice, Bulletin F of the U. S. Treasury Department recognizes a distinction; it states that "a reasonable deduction for obsolescence, *in addition to* depreciation, may be allowed," but continues, "it is unnecessary to take cognizance of normal obsolescence separately, it being sufficient to recognize it as a part of depreciation."[9] It is no doubt true that for income-tax purposes it is sufficient and is more convenient to combine the two, but is it sufficient for purposes of management, and is it to the best interests of investors

[6] Gilfillan, F. C., "The Prediction of Inventions," *Technological Trends and National Policy*, National Resources Committee, Washington: U. S. Govt. Printing Office, 1937, pp. 15–23.

[7] Paton, *Accountants' Handbook*, New York: Ronald Press, 1935, p. 1111.

[8] *Ibid.*, p. 1111.

[9] *Op. cit.*, p. 2.

and the public, more or less to conceal this increasingly important item?

It has been said that "physical depreciation, the consumption of equipment used to facilitate production, creates an expense expressive of active cost, [while] complete obsolescence, retirement of useful but unused service capacity creates a loss expressive of factors not causally related to actual production."[10] If accountants applied the strictly scientific point of view in distinguishing losses from costs, some interesting refinements would be introduced. For example, it is said that the best efficiency to be expected from a steam engine is about "ten per cent of the potential calories embodied in the coal,"[11] therefore 90% of the purchase price of the coal used would be considered a loss, and 10% would be considered a cost.

Probably nothing used in production is used 100% efficiently; therefore, if the suggested refinement were made on a scientific basis, every outlay incurred in carrying on production would have to be divided between cost and loss. A scientific treatment such as this would reveal many important details and should lead to increased efficiency and increased control of wasted energy. Such a development probably will not appear in the immediate future, but the measurability of such factors may not be outside the realm of possibility. For example, if someone had tried to insist, seventy-five years ago, that an attempt should be made to measure the effect of physical depreciation and obsolescence in computing the profit of an individual concern, business men would have maintained that the idea was not only theoretically unsound but was impossible practically.

Disregarding possible refinements of other items, if obsolescence and depreciation are to be considered as separate parts of the amortization of fixed assets and if even normal obsolescence is to be called a loss because it is noncausal, then the accountants' traditional concept of loss will necessarily have to be reconsidered. Obsolescence which is accrued might be called a regularly recurring loss, or perhaps an anticipated future loss which is apportioned over the life of the asset becoming obsolete. A question might be raised as to whether normal obsolescence occurs gradually, or whether it occurs frequently enough to be called a gradual occurrence. Of course, the abandonment of obsolete assets occurs at a specific moment of time, but the conditions leading up to normal obsolescence develop gradually and so we might say that the results of these conditions also accumulate in the same way. Even though normal obsolescence might be considered a series of events which because of their regularity give the appearance only, of being a gradual process, nevertheless if these series of events can be reasonably predicted, then recognition should be given to the fact that changes are occurring or will occur which will cause obsolescence.

Thus, according to this line of reasoning, losses might be considered as disappearance of value without compensation, but of two types, those which are of an extraordinary character and which could not have been anticipated (extraordinary obsolescence), and those which are of an ordinary character (normal obsolescence) and so are currently taken into account through periodic entries and periodic deductions from income. Normal obsolescence would then be deducted from income periodically but would be considered a regularly recurring loss (an expense of doing business), but recorded separately from direct costs because it has not contributed anything to production.

[10] Littleton, A. C., "Concepts of Income Underlying Accounting," Accounting Review, Vol. xii, No. 1, p. 21 (March, 1937).
[11] Commons, J. R., *Institutional Economics*, New York: The Macmillan Co., 1935, p. 285.

If obsolescence were accrued separately, then of course the estimates originally made should be subject to constant examination and revision. When fixed assets are first purchased, retirement because of obsolescence may appear to be likely only in the distant future. If, after some period of time, new developments appear which will cause retirement sooner than was originally estimated, this fact should be recognized in the accounts. Since the allowance for obsolescence in the past would have been too small, an adjustment should be made for the amount of the underamortization. Future allowances for obsolescence should be based upon the currently estimated life of the property involved. As the point at which property is to be retired because of obsolescence approaches, its date becomes more and more discernible. Such a procedure would tend to reduce the number of cases of extraordinary obsolescence and large write-offs of fixed assets which industrial firms have claimed have been due to extraordinary obsolescence. The establishment of a contingency reserve out of surplus would permit adjustments necessary because of variations between estimated and actual obsolescence.

The procedure outlined above is a slight modification of the theoretically ideal treatment. As the technique of forecasting develops, it may be that more and more obsolescence can be classed as reasonably predictable, and correspondingly the occurrence of extraordinary obsolescence will diminish. Such a tendency would permit a theoretically more sound treatment.

The practical difficulties should not be minimized, for the periodic measurement of operating results required of accounting, necessitate many modifications and variations from the ideal. In spite of difficulties encountered, accountancy, if it is to advance as a science, must continually reexamine current practices in the light of desired objectives. Computations of profits are desirable and necessary but accountants must concern themselves also with analysis of the component parts of those computations. An attempt has been made in this paper to focus attention upon one small part of the computation of profit, and to point out some of the difficulties encountered.

We might compare the subject of depreciation and obsolescence with our individual trips to Philadelphia. Some of us came all the way from California, some from Illinois, some from only a few blocks away. Some of us came by train, some by bus, some by automobile, some of us may have "hitch-hiked," and some may have walked. Yet since we are all in Philadelphia now; in other words, since all accomplished the same end, can we imply that all of these trips are adequately described by saying that they all ended in Philadelphia? Certainly not, for all of us had different experiences en route, and all of us had different amounts and kinds of expenditures.

Similarly, physical depreciation and obsolescence both have the same result; namely, loss of value of fixed assets and withdrawal of fixed assets from use, but is accounting concerned, only with the final result, or is it concerned also with what has happened along the way, and with brought about the final result? The difficulties of separating these two dissimilar things may be too great to attempt at the present time, but accountants should recognize that they are different in nature, and that considerable progress in predicting obsolescence has been made in the past and may be expected to be made in the future.

TRAINING FOR THE CONTROLLERSHIP

WYMAN P. FISKE

FOR MANY years the curricula, meetings and literature of the teachers of accounting have been predominately concerned with the problems of training for public accounting. Recently the attention given to costs, budgets, and other industrial accounting matters has been increasing. This is as it should be for the majority of our product goes into industrial accounting work, rather than into public accounting activities. As yet there is far too little in the way of organized curricula designed to train directly for individual company accounting and the literature, although it contains excellent treatises in some areas, is weak and sadly needs coördinating efforts. For these reasons it seems appropriate and indeed significant that a session of the annual convention of the American Accounting Association should be devoted to controllership, which is the industrial accountant's function.

The field of controllership is new and developing rapidly. A recent investigation showed such a wide difference in the activities of a group of controller departments as to indicate clearly a lack of any clear cut definition of the function. Those who attempt to define it are perhaps rash and in most cases may ultimately change their views. Nevertheless, it is only by such attempts that we shall progress. Further, the approach to be taken in this paper to the problem of training for controllership is necessarily based on some concept as to what controllership is. With apologies to Mr. Elliott for encroaching on an area already covered by him, but as a necessary step in the development of my topic I make my own attempt at definition.

Controllership is a reporting and analytical function which accumulates, analyzes and reports to management, investor-owners and other equities essential financial and statistical data. That it is a service function rather than a line or operating function is clear. That it is more than a technical accounting function is unfortunately not so well recognized. The responsibilities of the controller extend in two directions. He owes a professional obligation first to the owners of the business to report objectively and without bias on the financial and profit results of operations. This duty substantially coincides with the problems of financial accounting and includes the responsibility for those policy decisions having to do with sound and approximately accurate reporting. In this phase of the function, the controller must recognize the existence of some conflict of interests between different ownership groups and between owners, creditors, and management. This conflict places him in the position of an arbitrator, a position that calls for full consciousness of his responsibilities.

The other obligation of controllership is to management. Here the duty is to provide other divisions of the business enterprise with those facts, estimates and analyses which are essential to their policy decisions. If this service is to meet the needs of the situation, the controller must anticipate the figure requirements of the other departments and provide analysis in advance of the need for decision, which must many times be made on too short notice to permit special investigations and analyses. The areas of service include cost and expense control, investment control, problems of selection from among alternatives and sales price policy. The types of analysis required vary with the objective, and call not only for high analytical ability

but also for a broad understanding of the problems of the operating executives. As business enterprises increase in size and complication, as margins narrow and as competition intensifies, success or failure may depend in no small measure upon successful performance of this second phase of the function.

Controllership has two sides which should be recognized in training. The first is almost purely technical; the second is more nearly administrative. There is required a complete familiarity with all available technical devices, in order that accumulation, analysis and reporting may be done well and at a reasonable cost. Yet this is not enough. There is required in addition a broad understanding of all functions and problems of the business unit served and a complete recognition of the professional responsibilities of controllership to the owners of the business.

It is a common characteristic of all business functions that administrative responsibilities increase as jobs progress toward the top. In the case of executive and technical functions the opposite is the case; in the lower executive positions they constitute almost the entire job. So it is in the controllership area. From minor supervisory jobs up to department heads the technical responsibilities and requirements are the most important. The controller and his immediate staff, on the other hand, will leave most of the technical problems to subordinates chosen for their abilities in these directions, and will concentrate on the administrative or policy phases of the function.

The qualities and facilities required by incumbents of the two types of positions differ substantially, with differences arising from the contrast of an administrative or policy-making function with the executive or directing function. Although the usual advance to the top controllership position will be through divisional responsibilities in the department, it is altogether too common an experience either to be unable to find on the staff a man qualified for the promotion or to find, upon selection, that the new administrator is not the success he was as a department head. Training and selection must be predicated upon a recognition of the differing requirements. The same methods which are efficacious in developing able cost accountants or auditors will not necessarily produce outstanding controllers any more than the same training program can be expected to develop factory managers and company presidents.

It is necessary at the start to decide which of the two objectives a particular proposed program is designed to reach. The great mass of industrial accountants will never progress beyond department heads. There are only a relatively few positions as division head or controller to be filled. Far more are to be trained for the predominately technical jobs than for the few higher administrative positions. Improved education in either area will be a contribution.

In order to keep this discussion within a reasonable space and at the same time to give adequate treatment, limitation to consideration of one of the two possible objectives is desirable. The objective chosen is that of training for the administrative aspects of the field. Without any intent to belittle the importance of the technical aspects of accounting, it is the broader phases of controllership which give it its professional dignity. Hence it seems appropriate to attack this problem first, particularly since some attention has already been given by others to training for technical accounting jobs. Education for controllership, on the other hand, is at present generally either non-existent or represented only by scattered courses rather than organized programs. That this condition is due to the comparatively recent development of the field is an expla-

nation rather than a justification. There is indicated, however, a real need for careful examination of the problems involved and for some organized attack.

No fair-minded person can fail to recognize that there are alternative approaches to every educational or training problem. Formal academic methods are but one of several, each of which has its particular advantages and limitations. Apprenticeship is an obvious possibility with real attractions. Informal study and reading programs are a third. Nor should we forget the educational possibilities of such professional bodies as The National Association of Cost Accountants and the Controllers Institute of America.

To date, apprenticeship, including under that term development through gradual advancement from one task to another, has offered almost the sole training possibility. The limitations of this approach explain the frequency with which present controllers have been drawn from practicing professional accountants and other similar sources. Apprenticeship can produce high technical ability in the areas of practice. Unless supplemented, it usually fails to produce necessary breadth and understanding of other phases of the work. To some extent this can be offset by a formal training program in which the apprentice is moved from one task to another at a rate and under a plan which insures complete coverage. If the apprentice is of the right type and will undertake by proper outside study to acquire breadth of background, a controller of high calibre can be produced, as is proved by the large number of able men now in the field. This type of program built upon a proper academic background is probably the ideal combination.

Formal academic or professional school training, although practically non-existent in the controllership area, also has its advantages and limitations. It is difficult under school conditions to produce a real technical facility. The problem of a practical as opposed to theoretical training has been discussed many times. To offset these difficulties, however, any good school should be able to give a far greater breadth of background than is possible under the ordinary apprenticeship approach. The increasing importance of breadth as the young man is advanced in business makes its inclusion in the training program essential. The academic approach offers one other advantage. An objective examination of a professional area with study of the objectives and the alternative approaches is always a healthful and useful experience, and one which is difficult under the pressure of business conditions. It is one of the reasons why practical business men join professional organizations and attend professional meetings. It provides the initiate in business with a basis for orienting his work to the business as a whole and for appraising the efficiency of routines and methods.

As the work for which training is undertaken approaches the professional level, the importance of insuring the inclusion of broadening features increases far more than proportionately. Hence, it appears particularly desirable that the program include a combination of apprenticeship in business with an academic period in which fundamental analysis and breadth are the primary emphasis. The apprenticeship phase should be carefully planned to insure the acquisition of adequate technical facility without deadening the broader approach which is of relatively little importance in the technical jobs, but becomes of great importance as progress is made toward positions of higher responsibility.

With this preliminary statement of the need for a combination of apprenticeship and academic elements, it is necessary to limit further discussion to the formal academic portion. Again this limitation car-

ries no implication that the apprenticeship is unimportant, for the contrary is true. It is clear that a good apprenticeship can offset in large measure a poor academic training, and that a poor apprenticeship imposes a handicap which can be overcome only by breaking the company connection.

The timing of the formal study program is important. Is training for controllership best included in an undergraduate program or is it better undertaken as graduate work? The advantages of the graduate approach lie in the greater maturity of the student and in the fact that breadth and analytical powers should have been developed in the undergraduate work, be it in liberal arts, business or engineering. Controllership is a dignified profession calling for maturity of thought and an understanding of the importance of intangibles and human personality in business. There is a real question as to whether the average boy of undergraduate age has enough years on his shoulders to grasp the significance of some of the more important problems. Inclusion of the work in an under graduate program will place a greater burden on the apprenticeship phase. Even a good graduate student without a knowledge of business gained through experience will be under enough of a handicap. Clearly the ideal arrangement would be a graduate program preceded by some undergraduate work in the technical phases of the area and by a period of actual business experience. Since the aim of all professional training is to shorten the apprenticeship period and to accelerate the rate of progress towards the ultimate responsibility of which the trainee is capable, the attempt must be made to find that combination which is most efficient. Practical considerations will make the deferment of periods of formal study much beyond college graduation impossible and undesirable for more than a few. Hence a graduate program following immediately after completion of undergraduate work is probably the best compromise. This still leaves a real burden to be assumed by an intelligent apprenticeship program, but has a greater assurance of success than does exposing an immature undergraduate mind to problems largely beyond its grasp.

Suggestions as to the course content of the academic program, come from many sources. The controllership function has many angles and business men are prone to expect that the young man will have studied all. That is an impossibility. Technical accounting subjects alone would require a considerable period of time if their study were sufficiently intense. The only approach possible is first, through a recognition of the time restrictions, and second, through a constant consciousness of the objectives, advantages, and limitations of the academic approach. The period now devoted to professional business subjects ordinarily does not exceed two years. This is combined either with four years of general college training (in the graduate business schools) or with two years of general work (in the undergraduate schools). The problem of training for controllership is particularly difficult for it requires a technical training plus a general business training. In other words, in the same time (and there is little argument for extending the study period) two jobs must be accomplished. To expect that the student can learn in that period enough to permit him to step into any section of the controller's division and to be immediately useful is to ask the impossible.

The problem then is one of the best use of too little time. The answer is to be found in an understanding of the strengths and weaknesses of academic training and then in re-examination of the objectives. Formal education is relatively inefficient in developing technical skills, for that requires repetitive drill beyond the time available. It cannot ordinarily train for a particular

industry because that would multiply programs and courses beyond economic limits. It finds impossible the presentation of such a complete range of possible actualities as to provide the answer to every conceivable situation. Since judgment is largely based on accumulated experience, and experience is a function of time, development of great judgment is also unattainable. On the other hand, there is time to consider underlying laws and principles. If real technical facility is unattainable, development of the power of analytical thought is possible, and more easily accomplished than where routines necessarily form a predominant part of one's job. Further, the professional school or college can assist the student in his examination of the social, political and economic structure and of the relation of the individual business enterprise to that structure. (Today that problem is assuming dominant importance.) In short the academic approach can provide depth of thought, understanding of fundamental principles, and a point of view, but is limited in areas of technical facilities and in complete coverage. It is common sense to emphasize the advantages and to leave to another method (such as apprenticeship) the sections where formal education is relatively inefficient.

Specifically this means that the primary objective of professsional training can never properly be the development of technical facility. Nor should the business man expect it. If facility is his objective, he should encourage his employees to follow the apprenticeship route, supplemented by night school courses emphasizing technical methods useful in his own industry. Some companies provide just such courses. From the progressional school, the business man should expect breadth of background and understanding, and well-developed powers of analytical thinking.

Once this objective is accepted, the problem of course content becomes far simpler. Complete coverage is not sought, for it is recognized that the young man entering business still has many things to learn. The first question asked in regard to any course must always be, "Does it develop the powers of analysis and does it increase the students' understanding of how business operates?" Since breadth is an objective, the course will necessarily include much that is of no practical use in the sense that it will make a student more valuable in early jobs. (Ultimately this breadth will be the most valuable characteristic in the higher executive responsibilities.) An important section of the work will have to do with other functions of business, which the future controller is to serve. The remaining portion will be technical, but approached broadly from the angle of principles, rather than in a procedural manner.

Regardless of the time available, it would appear there should be an approximately equal three-way division of courses between

(1) Professional accounting courses

(2) Professional Business courses

(3) Economic, sociological, and other background courses

The second and third groups can be dismissed with relatively brief discussion. The student should be grounded in finance production, marketing, and law. He should also follow one or more of these areas far enough to gain a real appreciation of policy implications. Some coordinative work emphasizing policy and involving conflicts between divisional interests would be helpful. Through all this work the controllership interest can be developed by emphasis on pertinent figure analyses.

Background courses should be based on economics, supplemented by government and sociology. In addition to a general economics course, study of the money and banking structure, of business cycles, statistics, governmental regulation, and re-

lated subjects are relevant. Work in this division is particularly valuable for it introduces the student to areas where the multiplicity of factors and presence of psychological elements make mathematical analysis difficult. This will offset the apparent preciseness which accounting implies to the immature mind.

Time limitations appear greatest when the accounting section of the program is attacked. There the professional interests of the controller cause a relatively great importance to be attached to each section of his activities. The array of possible topics is imposing. They include bookkeeping, financial accounting, systems, cost accounting, auditing, financial reports analysis of financial statements, taxation, office management, controllership problems, governmental regulation, mechanical aids, and so on. Most of these topics would require a course extending at least a year for adequate treatment; some would require more than that. Recognizing that something less than a year's time in total is available for this phase of the work (and this assumes a two-year program), the difficulties of selection are apparent.

Again the only solution is to be found in a willingness to sacrifice complete coverage in favor of depth, leaving to the apprenticeship phase and to that continued study which is carried on by every successful executive the task of filling in the voids. Attention must be given rather to types of analysis, to a definition of the function, and to a consideration of the range of problems included.

Some are certain to criticize the above program as too general, too broad, and as not giving the student sufficient in the way of tools. These persons should be reminded once again that that task is one which can be better accomplished in other ways, while the suggested outline both takes advantage of the strengths in the academic approach and provides an element necessary to constructive controllership, an element which it is difficult to get as well in any other manner. Facility and sound judgment will follow upon the apprenticeship phase of the work. In his initial work, the young man should develop because of his ability to relate his part to the rest of the work. As he progresses, the value of the study program should become increasingly apparent and substantially increase his rate of advancement.

This entire discussion has been based upon an acceptance of the dignity of the professional responsibilities and upon a conviction that the problems faced are sufficiently difficult to press a well-trained mature mind. It is further based upon the premise that training for technical departmental positions is another problem. Undergraduate preparation for that phase is a definite possibility; probably more than undergraduate training is uneconomic unless progress beyond departmental responsibilities is the objective.

In summary, then, the approach has been that any discussion of training for controllership must start with a definition of objectives and a division of the problem into sections. We have been concerned here with training for the administrative, policy-making responsibilities of the controller and his immediate assistants. Various methods of training have been recognized but a combination of formal academic work with an organized apprenticeship program has been accepted as the most promising. To apprenticeship has been left the task of developing facility and judgment in meeting particular situations. Upon the academic program has been placed the burden of developing depth of analytical thinking, breadth of background, and the proper point of view. For these reasons the emphasis in the academic work has been upon analysis and breadth. The impossibility of including all desirable topics in the curriculum was ac-

cepted and a program was developed which was divided into three parts, covering (1) technical subjects, (2) general business courses, and (3) background work in economics and related subjects. The desirability of undertaking the program as graduate study was advanced.

Of necessity because of space limitations this discussion of the assigned topic has been general rather than specific. The paper has been prepared with the deep conviction that free discussion is important and should follow. At Columbia, Northwestern, Harvard, and at my own institution, Massachusetts Institute of Technology, various starts have been made upon the problem. At least some of these schools are represented at this meeting. I hope that comment and statements as to the several approaches may be forthcoming.

AUDITING ASSESSMENT ACCURACY

George W. Peak

Accountants have been troubled in recent months over their responsibility in the matter of auditing inventories. It now appears to be settled that whenever no physical verification of inventories has been made, the auditor's report will contain an appropriate qualification. Furthermore, it is not an unreasonable prediction that auditors will become more and more insistent upon physical verifications. Inventories are the life-blood of an enterprise organized for profit; but this is not the case in an organization devoted to the task of furnishing public services. In the field of municipal government the primary revenue source is from taxes levied on property valuations. Inventory verification has a peculiar application in municipal postaudits.

The normal revenue channel in business enterprises is from inventories to receivables to cash. Similarly, in municipal governments the channel is from assessed valuations to receivables to cash. If it is important to verify inventories in the case of an enterprise operated for private profit, it is equally important to verify assessed valuations in the case of a public enterprise. Both inventories and assessed valuations form the spring from which stream the revenues of the respective enterprises.[1] However, an examination of accounting literature fails to disclose any statement to the effect that the municipal auditor should confirm property valuations; neither does it reveal any statement that the auditor's report should be appropriately qualified in the event of the lack of such confirmation. Moreover, if auditors have followed the practice of verifying assessed values, or qualified their reports in the event of the omission, it can be said without fear of contradiction that the exception rather than the rule has occurred.

This failure in accounting practice to verify assessed valuations cannot be said to have been the result of a lack of concern on the part of municipal post auditors to perform adequate services or to submit helpful reports. Rather it is the result of a combination of circumstances, many of which are at best only remotely connected with the field of auditing. In the first place, auditing is in no sense an exact science, and auditors like doctors are constantly finding methods of improving their prac-

[1] Like all analogies, this one is not exact. But the similarity is so strong as to justify surprise at its not being developed before now.

tice. Too, the development of municipal auditing practice has lagged woefully behind that evolved in the field of business-enterprise auditing. Second, although state constitutions and statutes require assessed valuations to be one hundred per cent of market value,[2] an apathetic attitude on the part of the general public in this respect is evident. So long as there is a fair degree of equity in the assessment of various properties, the general feeling is that no particular mischief has been produced. Third, standardized assessment rules are of comparatively recent origin, and "rule-of-thumb" methods are still common among assessing officials. In the fourth place, procedures for checking the accuracy of assessed valuations are still in embryonic stages. Fifth, boards of equalization are semijudicial bodies of review and there has been some reluctance to provide for a further examination of the boards' decisions. Finally, the common belief has been that the expense of auditing assessed valuations satisfactorily would be either prohibitive or out of proportion to the results to be obtained.

The proposition that auditing practice changes from time to time, adapting itself to changing business practice and altered community needs, requires no development here. Likewise, the corollary of the lag of municipal auditing practice is hardly open to question. Equal sanguineness cannot be advanced, however, with respect to the argument that "equalized" valuations are sufficient in the absence of one-hundred-per-cent valuations.

It is theoretically true that no injustices are worked within a particular local jurisdiction when assessed valuations are equalized, although below the one hundred per cent ratio level. The old trick of lowering assessed values and raising the local tax rate in a county, however, in order to escape a proportionate share of the state property tax levy, does operate to produce injustices in those jurisdictions having state levies. These injustices will become more nearly eliminated as assessed values approach full values. It is further apparent that in jurisdictions operating under statutory or constitutional tax-rate limitations governmental services may be restricted unduly if assessments are less than full value. In such cases, full-value assessments may be much more important than "equalized" assessments. Much the same reasoning holds in the case of debt limitations, which generally are expressed as percentages of assessed valuations.[3] It is not uncommon for assessed values to form the bases for apportionments of grants and shared taxes. Thus it is entirely possible for a local jurisdiction to participate less than proportionately in distributions from superior governmental units because of an undervaluation policy.

The property tax has probably become more regressive in fact than it is in theory. Very seldom are assessments equalized, and various studies have shown that low-value properties are actually assessed at a higher ratio of full value than high-value properties. For example, it is not unusual for properties worth less than $1,000 to be assessed at more than one hundred per cent of full value; at the same time, properties worth more than $20,000 may be assessed at considerably less than the one hundred per cent ratio.[4] While it may be

---

[2] Or cash value, or some other similar terminology. The usual definition is that price which a buyer, willing but not forced to buy, would pay to a seller, willing but not forced to sell. In fairness, it should be noted that some jurisdictions require valuations at less than the one hundred per cent ratio. The usual procedure, however, is to use the full value as a standard and then reduce the valuation in the appropriate percentage.

[3] Contrariwise, local units of government have been known consciously to inflate assessed values in a particular year for the purpose of evading debt limitations.

[4] See Joseph D. Silverherz, *The Assessment of Real Property in the United States* (New York State Tax Commission, Special Report No. 10, 1936); Harold Howe and L. F. Miller, *Assessment and Collection of Farm Real Estate Taxes in Kansas* (Kansas State College of Agriculture and Applied Science, Agricultural

argued that these inequalities could be removed by "equalization" at some ratio lower than one hundred per cent, the fact remains that in jurisdictions where the assessing officials aim at less than one hundred per cent, inequalities do exist. Who knows what the facts would be if the one hundred per cent ratio were the goal? One of the studies mentioned above found that "the more nearly, it appears, that a county approaches a full-value assessment, the more individual assessment inequalities are overcome."[5] With "law and order" on the side of full-value assessments, there seems to be little justification for a departure from that goal.

If the desirability of extending municipal auditing practice to the verification of assessed valuations be admitted, there remains the problem of practicability. It must be conceded that the problem is an impediment to the realization of widespread adoption of the practice in a short period of time. This is not to say, however, that at least test-check techniques cannot be devised whereby the general accuracy of assessments may be determined. The following is a brief outline of some comparatively simple procedures which an auditor might reasonably adopt:

1. The accuracy of property descriptions may be tested by comparisons with instruments of conveyance. Since accurate descriptions are necessary in many states if a valid tax sale is to be made, this procedure may lead to a result more important than a mere statement that the properties can be identified by the assessment description.

2. A brief survey of the methods used by the assessor in arriving at the valuations should be instructive to the auditor. For example, the absence of property index cards, tax maps or any standardized unit values for land or buildings can be considered as *prima facie* evidence of inequalities and undervaluations. As in the case of internal checks, the character of an assessment system, once determined, will indicate the extent to which a detailed examination is necessary.

3. A comparison of assessed valuations with values indicated by Federal revenue stamps attached to the deeds of recent realty transfers should yield worthwhile results. In large jurisdictions, the number of such transfers will probably allow a statement of the ratio of assessed to full value with a considerable degree of statistical accuracy. Of course, it is necessary to eliminate consideration of any transfers, such as intra-family transactions and sales to public agencies, where the probability is large that a *bona fide* sale is not represented.

4. Assessment in some jurisdictions are probably so low as to make profitable a comparison of assessed values and encumbrances recorded against the property.

5. In some cases, it may be possible to ascertain the amount of insurance carried on a number of properties. When this is possible, a comparison with assessed values should not be neglected.

6. Recent appraisals may have been made for the Farm Credit Administration, the Home Owners Loan Corporation, the Federal Housing Administration or other federal government agencies. Where it is feasible to obtain the results of such appraisals, comparisons with assessed valuations will be pertinent.

7. Advertisements indicating sale prices are indicative of actual values. Rental advertisements may be capitalized in some cases to obtain comparative values. Both means must be used with caution.

Experiment Station Bulletin 283, 1939); Estal E. Sparlin, *Inequalities in the Arkansas Property Tax Assessment System* (University of Arkansas, College of Agriculture, Agricultural Experiment Station Bulletin No. 369, 1939); Department of Revenue, Commonwealth of Kentucky, *Assessment of Real Property in Kentucky Counties* (Special Report No. 3, 1939).

[5] Department of Revenue, Commonwealth of Kentucky, *op. cit.*, p. 15. See also Table III, p. 17.

8. In those states which provide for separate city assessors, valuations of the county assessor and the city assessor may be examined for significant variations.

9. Personalty is commonly assessed at a lower proportion of full value than in the case of realty.[6] Furthermore, evasion is more frequent in the case of personalty. Methods for checking the accuracy of personalty assessments are too numerous and varied to detail here, and certainly this is a wide field in which the auditor may exercise his ingenuity.

10. Private appraisal experts may be used to supplement the work of the auditor.

Of course, this list of procedures is suggestive rather than exhaustive. It is not too much to expect that the number of techniques now available will expand from time to time as auditors gain experience in this particular type of varification. As in the case of commercial inventories, it will seldom be possible to make a complete verification, but the principle of testing is equally applicable. Few would contend that the auditor should be qualified as a professional appraiser.

Is it reasonable to assume that the expense of ascertaining the correctness of assessed valuations would be prohibitive or out of proportion to the results to be obtained? In the absence of any conclusive data, I think not. The procedures outlined above should not be unduly expensive. And if the result of this addition to the municipal audit is to help obtain assessments reasonably close to full value, the outlay should be returned to the municipal treasury many times over. If gross inequities and low-ratio assessments go hand-in-hand, the social values of this auditing addendum should be given due weight in determining its usefulness. Of course, whether or not full-value results can be obtained is a moot question. There can be little doubt, however, that the additional auditing procedure would be a step in this direction.

Auditors should accept the responsibility of inquiring into assessed valuations or they should make appropriate qualifications in their reports.

[6] Of course, there are exceptions to this general statement.

THE PROFESSION OF ACCOUNTANCY IN ENGLAND: THE CLIENT AND THE INVESTOR

Mary E. Murphy

In England the emergence of the limited-liability company as the dominating force in economic life and indeed in public-accounting practice constitutes one of the major business phenomena of modern times. Its rise in recent years has been meteoric as the following data indicate:

	Number of Companies			
Date	*Private*	*Public*	*Total*	*Capital*
Apr. 20, 1910	24,207	25,930	50,137	£2,132,600,000
Apr. 20, 1914	48,492	14,270	62,762	2,481,800,000
Dec. 31, 1925	86,065	8,990	95,055	4,470,300,000[1]
Dec. 31, 1937	122,695	14,679	137,374	5,643,066,000[2]

English limited companies are composed of those which are registered at Somerset House, those which operate under Acts of Parliament and those which are chartered. Certainly the principle of limited liability has been applied in many more fields than Adam Smith prophesied in his *Wealth of Nations*.[3] The appearance of the large number of such companies has greatly broadened and enhanced the work of the auditor, and consequently increased his responsibility.

When the Consolidating Act was passed in 1862, 2,479 companies had registered under the Act of 1856 which established the principle of limited liability in England.[4] From that date to the present the increase in the number of limited liability companies has been large, although in that development the major emphasis has been upon the private rather than the public company from the angle of numbers if not from that of amount of capital involved. A private company restricts the right to transfer its shares, limits the number of its members to fifty excluding persons in the employment of the company, prohibits any invitation to the public to subscribe for any shares or debentures it may issue. Walter Bagehot once stated: "A million in the hands of a single banker is a great power . . . . But the same sum scattered in 10s and 50s through a whole nation has no power; no one knows where to find it or whom to ask for it." This applies with equal force to the diffusion of stock ownership which has occurred in England.[5] When some of the representative English companies and their average stockholdings are considered the following data are revealed:[6]

Company	*Amount Paid-Up Capital*	*Approximate Number Shares*	*Average Holding*
Imperial Tobacco	£37,492,625	94,690	£396
Imperial Chemical	43,589,538	124,690	350
Courtaulds	24,000,000	59,940	400
Unilever	11,318,750	19,420	583
Cunard	5,570,241	13,860	402

The stock of limited liability companies has become widely disseminated as can easily be seen from the foregoing figures with the individual holdings of small amount—so small indeed that no control can be exercised in the management of the company by its real owners. An economic system assumes that limited liability companies will be operated profitably and ethically—that they will not cause loss to the public. English financial history does not bear out this assumption. In 1880 there were 1,152 joint stock companies formed in England. Up to 1929 the fate of these companies was as follows: inoperative 311; reconstructed or emalgamated 84; liquidated 622; existing 115; information lacking 20.[7] Of 284 issues of shares or debentures worth in 1928 £117,000,000 it was discovered that the market value at May 31, 1931 was £66,000,000; 70% of the companies represented were wound up and the capital of 36 others had no ascertainable value.[8]

[1] Balfour, A., Chairman, Factors in Industrial and Commercial Efficiency, Part I of Survey of Committee on Industry and Trade, 1927, pp. 1–15.

[2] Woolley, Fred, "The Structure of Limited Liability Companies," *Accountant*, July 24, 1927, pp. 127–131.

[3] Adam Smith envisaged that this form of organization would enter only those lines of endeavor the operations of which were capable of being "reduced to what is called a routine or to such a uniformity of method as admits of little or no variation. Of this kind is, first, the banking trade, secondly the trade of insurance from fire, and from sea risk and capture in time of war; thirdly, the trade of making and maintaining a navigable cut or canal; fourthly, the similar trade of bringing water for the supply of a great city." From edition by Edwin Cannan, London, Methuen and Co., 1920, Vol. II, p. 246.

[4] Shaman, H. A., "The Coming of General Limited Liability," *Economic History*, Jan. 1931, pp. 267–291.

[5] Departmental Committee on Share-Pushing Report, 1936–1937, Cmd. 5539: "Contemporaneously with the growth of joint stock enterprises there has been a noticeable increase in the number of persons seeking to acquire shares for investment or speculative purposes in recent years, especially since 1918 or thereabouts."

[6] Parkinson, Hargreaves, *Scientific Investment*, London, Sir Isaac and Sons, Ltds., 1933, p. 4.

[7] Macgregor, D. H., *Enterprise Purpose and Profit*, Oxford, Clarendon Press, 1934, pp. 100–101.

[8] Macmillan, H. P., Chairman, Committee on Finance and Industry Report, Cmd. 3897, English Treasury 1931, pp. 161–174.

More rigorous accounting and publicity requirements at the time of the issue of the securities and during the companies' operations undoubtedly would have greatly reduced the loss. Publicity of accounting data has the double duty of allaying groundless suspicions and confirming those which are justified. Another result is that an intelligent public opinion is created with a general improvement in company administration and the removal from the scene of less efficient companies.

MANAGEMENT OF COMPANIES

Under contemporary conditions in England control of limited liability companies is quite apart from ownership and management of them. Such companies have become so complicated in financial set-up and their minorities so inarticulate and unrepresented that it has become essential to ascertain that full publicity be given to financial facts. In England the Liberal Industrial Inquiry Report emphasized the instinctive secrecy of English business men and stated that the common practice of publishing uninformative balance sheets had facilitated mismanagement of many companies.[10] The Report suggested that the Institute and the Incorporated Accountants should be amalgamated under charter and that the auditors of all public companies should belong to the resultant society which would maintain the highest professional standards; that the solicitation of proxies against auditors should be prohibited; that the Board of Trade should be asked to investigate companies if the shareholders were not satisfied with their condition. At the present time the amount of information which shareholders receive in England is based upon the discretion of the management assuming that the provisions of the Companies Act have been met. Henry Morgan believes that many of the unsatisfactory practices of English companies could be removed if legislation provided shareholders with the necessary powers to deal with them. Unfortunately many English directors cannot intelligently read a company balance sheet or a profit-and-loss account. Unless directors acquire this ability they would seem to be unable to exercise real direction of their company's activities.[11] It is impossible for shareholders, creditors and the general public to learn of the details of condition and operations of public companies in which they may be interested. The accountant must be the individual to whom is delegated the task of reporting pertinent data to them.

It cannot be too greatly stressed that the primary responsibility for the English company's records and accounts remain with the directors, who are paid for their services by the company. Mr. Justive Bennett declared in re Catterson and Son, Ltd.:[12]

> The primary responsibility for the accounts of a company is with those who are in control of the company—the directors. . . . It is not the business of the auditors to tell the directors how to carry on and conduct their accounting system; they make their recommendations and if they are not acceded to the responsibility is not the accountant's responsibility but it is the responsibility of the directors.

The foregoing statement gives the legal approach to the matter; certainly the English accountant accepts moral responsibility for the manner in which the records are maintained and the form and content of financial statements. In many instances company directors are not fair judges of the principles of accounting that should be consistently followed. They frequently do not have a broad view of the company and

[9] Hobson, J. A., *Incentives in the New Industrial Order*, London, Leonard Parsons, 1922, pp. 155–160.

[10] Liberal Industrial Inquiry, Oxford Liberal Summer School, Britain's Industrial Future, London, Ernest Benn, 1928, pp. 84–100.

[11] Colesworthy, H. E., *Practical Directorship*, London, Sir Isaac Pitman and Sons, Ltd., 1931, p. 45.

[12] *Accountant*, February 27, 1937, pp. 308–311.

its relation to society. The ignorance of English boards of directors has always been apparent in any public investigation of companies.[13] English accountants constantly combat this situation by striving to reach accuracy and completeness of disclosure of essential data to shareholders.

Firm and Company Audits

The main differences in England between the audit of a firm and a limited company are stated below:[14]

[13] Laski, Harold, *A Grammar of Politics*, London, George Allen and Unwin, Ltd., 1934, pp. 475–488.

[14] Summarization of material given in Taylor, E. M. and Perry, C. E., *Principles of Auditing*, London, Textbooks, Ltd., 1935, pp. 1–31.

Since 1900 the appointment of an auditor at each annual meeting for one year for every limited company in England has been required by Company Law. The majority of English firms are audited by professional accountants; hereunder there is the possibility of limiting liability through contract provisions with the client. The wise precaution in partnerships is to report specifically upon the balance sheet and at the base of it refer to the separate report which may be read in conjunction with the balance sheet. The auditor acting for sole traders or for partnerships is considered to be responsible to those individuals and to owe duties pri-

Firm	*Limited Company*
1. Governed by specific instructions from clients and partnership articles (if any), Partnership Act 1890 and/or Limited Partnership Act 1907 must be consulted for rights of partners if no agreement is in existence.	1. Governed by statute, i.e., Companies Act 1929, special act or charter, and effect of legal decisions.
2. Extent of work may be varied, enlarged or restricted by partners.	2. Rights and duties of auditor cannot be restricted by articles but may be enlarged. Auditor must conform to Section 134 of Companies Act 1929.
3. Written partnership agreement may not be available or shown to auditor.	3. Auditor must know the contents of articles of company (Leeds v Shepherd 1887) and ascertain what duties are cast upon him. He may be liable to damage suffered as result of his non-detection of ultra vires acts. (In re Republic of Bolivia 1913.)
4. Auditor reports or certifies in accordance with terms of his appointment.	4. Auditor reports to members in terms of Section 134 or under Section 113 certifies the statutory report as correct (as far as it relates to shares allotted, cash used in respect of such shares, and receipts and payments on capital account).
5. May be sole trader, or general or limited partnership.	5. Company may be public or private; auditor should see that restrictions are not transgressed, e.g., number of members in case of a private company.
6. Treatment of profit and/or losses depends upon specific instructions.	6. Auditor must see that accounts distinguish between losses of fixed or floating capital; profit and dividends; and classes of capital profits, e.g., where company has adopted the double account system.
7. Auditor may be liable at common law for negligence, etc., but may contract himself out of liability.	7. Auditor liable to common law liability. He may be held liable under Section 276 for misfeasance where he is held to be an officer of the company. Exoneration from liability contained in articles is of no effect.

marily to them. There are many English statutory enactments covering the work of the auditor. The most important of these are:

Industrial and Provident Societies Acts 1893–1928 Friendly Societies Acts 1896–1929 Industrial Assurance Acts 1923–1929	Auditors appointed by Lord Commissioners of H. M. Treasury

Companies Clauses Consolidation Act 1845
Railway Companies Act 1867
Regulation of Railways Act 1860
Railway Companies Act 1911
Railways Act 1921
Gas Works Clauses Acts 1847 and 1871
Gas Regulation Act 1920
Waterworks Clauses Acts 1847
Electric Lighting Acts 1882–1909
Electricity Supply Acts 1916 and 1926
Assurance Companies Act 1909
Building Societies Acts 1874 and 1894
Trustee Savings Bank Act 1893
Public Trustee Act 1906
Judicial Trustee Act 1896
Trustee Act 1925
Licensing Act 1910
Municipal Corporation Acts 1882 and 1933
Public Health Act 1875
Local Government Acts 1888, 1894, 1899 and 1933

All these Acts specify requirements as to outside audits and the rendering of statements. In relation to the railways, accounts must be prepared in a specified form and submitted to the government and to the shareholders with a certificate of the auditor stating that the accounts contain a full and true statement of the financial position. No dividend may be declared unless the certificate states that it is possible to do so after charging the revenue of the period with all necessary expenses. In relation to gas, electricity and water companies official auditors are appointed in addition to the shareholders' auditors and they examine the accounts prepared by them (the shareholders' auditors). The accounts of building societies, friendly societies and industrial societies are submitted for audit each year, must be maintained according to a recognized form, and from them must be prepared the annual return to be sent to the Chief Registrar of such companies. The importance of these fields for the auditor is easily recognized when one learns that the total assets of the 5,700 industrial and provident societies in 1935 amounted to £ 25,000,000 with the assets of the 20,000 friendly societies amounting at the same date to £ 135,000,000.

In England if the auditor is not performing a statutory audit he can limit his liability by contract but where the audit is perfomed under the Companies Act 1929 his duties are stated therein with incompleteness as to balance sheet requirements and no specifications as to the profit-and-loss account. The English profession of accountancy is afraid that obligations will be laid upon it which it will be unable to satisfy and that its services will be impaired through undue extension of its liability. It believes that the situation would be clarified if the pecuniary liability of directors to shareholders were incorporated in a legal enactment.[15] It was declared by the judge hearing the London Oil Storage Co., Ltd., Case[16] that:

> The auditor cannot shelter himself for any breach of duty under neglect of directors. . . . The only point on which the conduct of the directors may become material is upon the subordinate question as to whether there is anything to arouse suspicion of the auditor, whether or not the loss has already been occasioned by the auditor's conduct. The auditor is liable for the proper discharge of his duties and if by the neglect of his duty, or by want of reasonable care, he neglects his duty, and damage is caused to the company as such, he is responsible for that damage.

[15] "Liability of Accountants," *Accountant*, Jan. 27, 1934, pp. 109–112.
[16] 104 Acctg. L. R. 93.

The English auditor has the rights of access to the books of the company, of requiring information, and of attending meetings at which the accounts are presented. His position is strengthened by the fact that no change of auditors can occur unless attention is drawn to the matter by notice to shareholders and to existing auditors. It is generally assumed by the Government that accounts passed by company auditors are correct and in accordance with legal requirements; that they must have determined whether the accounts present the true picture of the affairs of the audited company. A copy of the audited accounts of public companies must be filed with the Registrar of Companies and the public has access at all times to his records; The Registrar does not ascertain the basis for computation of items shown or request more detailed data but accepts the certification of the auditor and the signatures of the directors as being proof that legal formalities have been complied with. Accountants may comment on the accounts in their reports and may feel that they should enlarge upon the information given to shareholders by the directors, but they do not have the legal power to alter the accounts or statements prepared by the directors. If they grant a clean certificate it does not imply that "the financial situation is satisfactory or that the company has been well managed; that the accounts as a matter of drafting are necessarily in the clearest form known to accounting technique; that all the transactions have necessarily been recorded and set forth in summary in accordance with some ideal or abstract standard of pertinent accounting principles."[17]

English legal cases, as a whole, hold the auditor responsibile for the expert performance of his duty and they assess damages if he fails to exercise the abilities of an ordinarily skillful practitioner. He must not only examine the books but receive explanations and information concerning the accounts to be certified. Lord Justice Lindley handing down the opinion in re London and General Bank (#2) 1895 outlined the duty of the auditor by stating:

> He must be honest, that is he must not certify what he does not believe to be true, and he must take reasonable care and skill before he believes that what he certifies is true. What is reasonable care and skill in any particular case must depend upon the circumstances of that case.

And Lord Justice Lopes in re Kingston Cotton Mills Co., Ltd. (#2) 1896, 1 Ch. 231 drew attention to the fact that the duties imposed upon the auditor should not be too onerous as the work is great and the salary small, and then stated:

> Auditors must not be made liable for not tracking out ingenious and carefully laid schemes of fraud when there is nothing to arouse their suspicions, and when those frauds are perpetrated by tried servants of the company and are undetected for years by the directors. So to hold would make the position of an auditor intolerable.

Section 362 the Companies Act 1929 covers the imposition of liability upon auditors.[18] Section 276 of the Act provides that the court has the power to assess damages against the officers of the company, including the accountants, if they have been guilty of any breach of trust in relation to a company that is being wound up. The auditor it would seem must exercise reasonable care in performing his duty and if he does not and his client suffers damage through his neglect or default he

[17] Jeal, E. F., "Evolution of Accountancy," *Accountant*, Apr. 10, 1937, pp. 521–529.

[18] Section 362 of the Companies Act 1929 states: If any person in any return, report, certificate, balance sheet, or other document, required by or for the purposes of any of the provisions of this Act specified in the 11th Schedule thereto, wilfully makes a statement false in any material particular, knowing it to be false, he shall be guilty of a misdemeanor, and shall be liable on summary conviction in England to imprisonment for a term not exceeding four months, with or without hard labor, and in either case to a fine in lieu of or in addition to such imprisonment as aforesaid.

is liable in a suit for damages. Each case must be interpreted on its own merits relative to auditing skill and negligence.

The decision of Mr. Justice Sterling in re Leeds Estate Building and Investment Co. v Shepherd 1887, 36 Ch. D. 787, enlarged the duties of auditors beyond the mathematical accuracy of the balance sheet. The learned judge stated that the auditor should not confine himself merely to ascertaining that the balance sheet was mathematically accurate but that he should in addition discover whether it was substantially accurate. He should ascertain that "it contained the particulars specified in the Articles of Association (and consequently a proper income and expenditure account), and was properly drawn up so as to contain a true and correct representation of the state of the company's affairs."

Attention in England has been largely concentrated upon the balance sheet, which is a statutory document, with little emphasis upon the very important profit-and-loss account which contains, as a general rule, scarcely any information for its readers. Standardization of accounting statements is not the aim of the English accounting profession; it is not expressed in the literature in this field. At all times English auditors should remember the statement of Lord Justice Wright in the Royal Mail Case:

> One cannot help wondering whether those who managed large companies did not forget sometimes that the directors of the company were agents of the shareholders, that they owed them full information subject to proper commercial and reasonable necessities and it was the shareholders' interest they had to study. They were not to regard shareholders as sheep to look up if they were not fed.

Although this statement was specifically applied to directors it has words of truth also for English auditors for they should use all their influence to persuade company managements to permit full disclosure of accounts. The use of financial statements has become widespread in England as is testified by this enumeration:[19]

1. *Shareholders*—to see how and with what result their capital is employed.
2. *Stock Exchanges*—to judge the intrinsic value and future possibility of shares.
3. *Debenture holders*—to see that their security is not being jeopardized and that the company is carrying out any special provisions.
4. *Bankers*—to know the extent to which they may rely upon realizable value of assets and the current ratio.
5. *Creditors*—amount of assets charged to debenture holders and others and the effect of over-trading.
6. *Economists*—to acquire information as to costs of production, divisions of returns between labor and capital.
7. *Competitors*—to know stock of materials held and cost to manufacture and sell.

Financial statements are prepared by directors and are presented to the auditor during his engagement. He must verify the accounting data which underlie the statements and must ascertain that they satisfy the legal requirements pertaining to them. Frequently he can bring pressure to bear upon the directors to change the form of accounts or statements, or to enlarge the amount of shareholder information. Sometimes the auditor is required to modify his views concerning these matters in the face of a real and honest desire on the part of directors to protect shareholders' interests. The auditor must satisfy himself that the information which is withheld from shareholders is not published for a justifiable cause and that its withholding will not damage their position. Under existing conditions in England auditors, in many instances, wage a struggle to maintain adequate statement disclosure. Perhaps the time will come when the profession can establish standards for a good audit and require that all

[19] Summarization of Kettle, Russell, *Qualifications in Auditors' Reports*, London, Gee and Co., 1928, pp. 46.

engagements meet this standard.[20] Under such a procedure no member of the professions would accept questionable engagements and companies would be forced to adopt correct procedures or have uncertified statements to present to their shareholders, to credit agencies, to stock exchanges, and to the public.

COMPANY ACCOUNTS

The process of investment, one of the most dynamic forces in the economic world, is under contemporary conditions so complicated that few individuals thoroughly understand it, although many engage in it. Publicity of accounting data protects investors and it also serves to make the system of investment sounder, less based upon speculative impulses and hypothetical estimates of past results and future trends. If the law regulating companies is weak and requirements for accounting are lax the resultant will be a weakness in the general efficiency of investment.[21]

Accounts as a whole are a profound mystery to most investors. One critic of English accountants contends that there has been no improvement in the average standard of work performed or ability shown, that the English profession is hidebound in its habits, that there has been little change in the presentation of accounts or any systematic progressive advance in accountancy techniques.[22] The accountant is not in England considered to be an insurer nor a valuer, nor an infallible individual. He must make a special effort to ascertain that the statements he examines do not convey to readers impressions which are incorrect or misleading.[23] In England it is the all too common practice for company statements to be submitted to the public in summarized and abbreviated form; in many cases shareholders do not receive any additional information than that which is furnished the general public. It is generally felt both inside and outside the English accounting profession that because the operations of companies differ there should be no attempt to formulate standards relative to accounts and statements. Beyond following the requirements of the Companies Act 1929 the directors are allowed to use their discretion in these matters after consideration of the circumstances pertaining to the particular case.[24] An enormous responsibility rests upon the directors in the maintenance of company accounts. Too frequently they are chosen for the prestige they will bring to the company, and also for the drawing power they will afford in the sale of securities, rather than for their ability.[25] Parkinson's study showed that in almost no cases did directors of large English companies hold as much as one per cent of the total issued capital; that in many cases chairmen read prepared annual reports but had no real interest in the company they represented. Samuel found that the ratio of directorates to total number serving was as follows:

Dukes	1 to 2.57
Earls	1 to 1.2
Barons	1 to 1.1
Marquesses	1 to .83
Viscounts	1 to .45

He indicated that 40% of the directors of English limited liability companies was composed of prestige directors of which 50% "pulled" their own weight. Many di-

[20] Jones, J. H., "The Functions and Future of the Accountant," *Accountant*, Nov. 14, 1936, pp. 667–671.

[21] Hobson, J. S., "An Economic Interpretation of Investment," London, *Financial Review of Reviews*, 1911, pp. 14–31.

[22] Anonymous. "Progress and the Professional Accountant," *Accountant*, Feb. 25, 1939, pp. 255–256.

[23] Garnsey, Sir Gilbert, *Limitations of a Balance Sheet* London, Gee and Co., 1929, p. 41.

[24] Plender, Lord, London *Times*, Apr. 27, 1932, p. 8: "Many directors of companies give full information in accounts but others set themselves against more disclosure than the minimum, in spite of any advice the auditor may give."

[25] Ernest Hooley is supposed to have introduced the era of titled directors in England, the title "guinea pig" directors has applied ever since.

rectors are firmly convinced that abridged accounts may convey the correct impression to shareholders without revealing anything of value to competitors.[26] The whole matter of company publicity rests upon the integrity of directors in instituting accounting procedures and principles of statement preparation.

The English accounting profession has not definitely decided what its position is relative to the disclosure of secret reserves. Their disclosure is frequently a matter of controversy between auditors and managements and it is the primary task for practitioners to ascertain for what purposes the reserves have been created and maintained. One authority has stated that if the auditor honestly believes that "such reserves are necessary in the interests of the company he may pass up the matter in his report but he must appreciate the responsibilities of such a decision. If they are needed to bolster up profits they must be disclosed."[27] H. L. H. Hill in his presidential address before the Institute in 1932 placed himself on record so being in favor of the auditor disclosing secret reserves if they had been created to give a false impression.[28] The motivating issue in the disclosure of reserves is the reason underlying their creation. In the interests of greater disclosure which will undoubtedly come in England in the next few years secret reserves will cease to be hidden and will receive publication along with the rest of accounting data. English managements have always been interested in maintaining such reserves rather than in disclosing their true financial strength. Industry in England is based upon individualism to a great degree and activities of directors are not questioned except under drastic circumstances. The general interpretation of legal cases appears to be that "no duty is imposed on the auditor to protect directly the interests of shareholders. His duty is to place them in a position to protect themselves."[29] The English are trained to consider managements of companies rather than statutes governing their operation. In other words, the spirit rather than the letter of the law is emphasized. This philosophy permits greater flexibility in regard to the direction and operation of public companies, and added weight is given to the personal integrity of both company directors and auditors.

COMPANY REPORTS

It is generally recognized that the Royal Mail Case in England aroused the conscience of company directors and auditors. Even though the auditor involved was acquitted, the company chairman, Lord Kylsant, was convicted of making, circulating or publishing a written statement (prospectus) inviting the public to subscribe to debenture stock when he knew it to be false in a material particular. It has well been said that the effect of this case was greater than it would have been had the defendants, the chairman of the company and the auditor, been convicted on the balance sheet charges brought against them. The chairman was actually convicted on the falsity in the prospectus. The major points in this case seem to include the following:[30]

[26] Moore, Kenneth and Michael, *Company Accounts and Balance Sheets*, London, Jordan and Sons, Ltd., 1931, pp. 96–103.

[27] De Paula, F. R. M., *Principles of Auditing*, London, Sir Isaac Pitman and Sons, Ltd., 1936, pp. 136–141: "In the past management in this country was greatly in favor of the creation of secret reserves and there is no doubt that this secrecy complex still exists. It is very questionable whether this policy is a wise one and it is difficult to understand what real damage would suffer by disclosing financial strength."

[28] H. L. H. Hill said on that occasion: "The utilization or the maintenance of secret reserves results in the suppression of material information, either in the profit and loss account or the balance sheet, so as to present a misleading picture of the affairs of the company viewed as a continuing enterprise. The accounts in my opinion are not 'true and correct' and we cannot report upon them without appropriate qualification."

[29] "Auditors' Responsibilities," *Incorporated Accountants' Journal*, Sept. 1933, pp. 478–482.

[30] Digest from Brooks, Collin, Royal Mail Case, London, William Hodge and Co., 1933.

1. The law holds that a statement is capable of misleading the readers even though it contains no specific inexactitude of fact.
2. A balance sheet which is not accompanied by a detailed and frank profit and loss account may be misleading relative to the position of the company and is unlikely to be a sound guide to the current value of its shares.
3. Auditors upon whom shareholders and the public rely for protection are handicapped partly because their exact responsibility for the profit-and-loss account is undefined and partly because their influence upon directors is not based upon defined statute and power of intervention but upon the personal relationship of two people each to the other.

After the first meeting of company shareholders the balance sheet and directors' report are circulated before each annual general company meeting.[31] At the general meeting in addition to these documents a profit-and-loss acount is presented by the directors but this need not be circulated nor is there any specification regarding it laid down by law, except in regard to directors' loans and remuneration. A full profit-and-loss account is seldom submitted by a company. The fullness of its presentation depends on the morality of the board and the views taken by the company auditor of his duty.

BALANCE SHEETS

It was not until the Companies Act 1929 came into force on November 1, 1929 that English law made really specific provisions for the form and content of the balance sheet and required that a profit and loss account or an income and expenditure account be submitted to shareholders.[32] Henry Morgan has suggested that before an auditor is justified in making an unqualified report according to this Act he must satisfy himself that the balance sheet is correctly drawn up, that it is true, that it is correctly stated, and that it is in accordance with the books. Moreover, it should not convey a misleading impression as to the condition of the affairs of the company. If the balance sheet when subjected to these criteria is found wanting, it is the duty of the auditor to draw attention in his report to shareholders to any omissions and to every item to which he takes exception. In 1844 Gladstone pointed out that "periodical accounts if honestly made and fairly audited cannot fail to excite attention to the real state of the concern"—this statement carries over into present day conditions and it should be applied to both the fullness and the fairness of the accounts. The *Accountant* does an exemplary task by drawing attention in its columns to companies which issue statements exhibiting bad practice, misleading data, or lack of pertinent information. For example, it

[31] Section 130 covers the right of individuals to receive financial statements. It requires that a balance sheet and a profit and loss account be laid before every public or private company in general meeting; that every member of a public company entitled to vote must be furnished a balance sheet and the auditor's report not less than 7 days before the date of the meeting; that every debenture holder of a public company is entitled to a copy of the balance sheet upon the payment of a fee; that debenture holders of a private company are not entitled to a balance sheet unless it is so specified by the terms of the debenture. The profit and loss account, therefore, is not circulated among the shareholders of the company.

[32] Section 124 (1) Every balance sheet of the company shall contain a summary of the authorized share capital and of the issued share capital of the company, its liabilities and its assets, together with such particulars as are necessary to disclose the general nature of the liabilities and the assets of the company and to distinguish between the amounts respectively of the fixed assets and of the floating assets, and shall state how the values of the fixed assets have been arrived at. (2) There shall be stated under separate headings in the balance sheet, so far as they are not written off: a. the preliminary expenses of the company; and b. any expenses incurred in connection with any issue of share capital or debentures; and c. if it is shown as a separate item in or is otherwise ascertainable from the books of the company, or from any contract for the sale or purchase . . . the amount of the goodwill and of any patents and trademarks as so shown or ascertained. (3) Where any liability of the company is secured otherwise than by operation of law on any assets of the company, the balance sheet shall include a statement that the liability is so secured, but it shall not be necessary to specify in the balance sheet the assets on which the liability is secured. (4) The provisions of this Section are in addition to other provisions of this Act requiring other matters to be stated in balance sheets.

referred to Boots, a large drug chain, which stated its ownership of stock in subsidiaries at £946,306, the amount owed by subsidiaries to itself at £1,274,580 but did not state the assets behind these large amounts. Lyons and Co., a restaurant chain, issued a balance sheet with assets of £10,802,917 consisting of land, buildings, fixtures, plant, machinery, fittings, etc. The *Economist* annually analyzes in its pages the results of about 1,800 British public companies and indicates good and bad accounting followed by these companies.

There are many expressions of doubt in England as to the value of the balance sheet to its readers.[33] Some English economists have suggested that a finance director be employed to examine the accounts of a company every year and to interpret their real meaning to the shareholders in a statement signed by himself accompanying the balance sheet as a statutory document. It is not the duty of the English auditor to prepare the balance sheet but he is instead presented with one prepared by the directors; it is his duty to audit the statement and to report to the shareholders whether in his opinion it presents or does not present a true and correct view of the statement of the company's affairs.[34] Lord Plender has pointed out that the balance sheet should afford shareholders the data for ascertaining the value of their shares; it should not disclose facts which will injure the business in any way. The auditor making the examination of the balance sheet must satisfy himself that it is properly drawn up according to customary practices in the profession. The Institute obtained Counsel's opinion on Section 126 of the Companies Act 1929 for the benefit of its members.[35] Counsel stated that the drawing up and responsibility for the statement to be annexed to the balance sheet of a holding company were matters for the directors, as the statement was not incorporated as part of the balance sheet. They went on to say:

> We see no objection to the statement which has to be annexed to the balance sheet offering in the form of notes printed on a profit-and-loss account or on a balance sheet or on both, but if this course is adopted the notes should follow the accountant's certificate in order that he may not assume responsibility for the statement. We do not believe that they are bound to satisfy themselves that it is prima facie correct or to point out any inaccuracy to directors or to bring to the attention of shareholders any difference of opinion between auditors and directors as to the accuracy of the statement. Of course in so far as profits and losses of subsidiaries are taken up in accounts of holding companies as such the matter comes within the scope of the ordinary functions of accountants of holding companies as such and will be covered by their report.

The Institute's Counsel stressed the fact that auditors may avail themselves of Section 134 (3) which gives them the right to attend meetings, that they may make statements or explanations if they wish

[33] Stamp, Lord, *Accountant*, June 4, 1932, p. 776: "The truth cannot be derived from the modern balance sheet so vaunted for its prudence, but prudence is just as possible without departing from what a balance sheet ought to be—a faithful record of the employment of the total capital invested in the business. . . . Has the shareholder who wishes to see his holding no right as to some real knowledge or value of what he is selling?"

[34] Section 134 states: (1) The auditor shall make a report to the members on the accounts examined by them, and on every balance sheet laid before the company in general meeting during their tenure of office, and the report shall state—a. whether or not they have obtained all the information and explanations they have required; and b. whether, in their opinion, the balance sheet referred to in the report is properly drawn up so as to exhibit a true and correct view of the state of the company's affairs according to the best of their information and the explanations given to them, and as shown by the books of the company. This section also covers rights given to the auditor of access to the books and accounts and vouchers of the company, and to require from company directors and officers such information and explanation as may be necessary for the performance of his duty; also the right to attend any general meeting of the company at which any accounts which he has examined or reported upon are to be laid before the company and to make any statement or explanation he may desire with respect to the accounts.

[35] This section refers to balance sheets of holding companies and the statement to be attached to them stating how subsidiary profits and losses have been dealt with in the accounts of the holding companies.

regarding the accounts but that they are not bound to answer questions proposed by shareholders. They should, however, correct any wrong information given out by directors regarding the accounts or relating to their reports.

As auditors in England are employed to protect the interests of shareholders they can frequently enlarge the content of the balance sheet and improve its form by persuasion of and wholehearted coöperation with the directors. However, an exhibition of facts which is not definitely misleading need not be questioned by the accountant. All items properly to be included in the balance sheet must find their places there and they must be grouped in a manner which will convey the correct impression to readers. A clear view of the financial position of the company should result from a perusal of the balance sheet, and there should be neither omission nor misstatement of its data.[36] An accountant must exercise his individual judgment in each engagement considering the facts in the case. It has been held by one of the outstanding English accountants that responsibility for the balance sheet and the income account cannot be divorced in the mind of the accountant—that if he assumes responsibility for the former he must at the same time accept responsibility for the latter as to its correctness and he must report to shareholders upon any irregularities or incompleteness in the profit and loss account.[37] In this interpretation the auditor must go beyond the formulation of the law as the balance sheet is the statutory circulated document in England. The parties who are considered to have interest in the balance sheet are bankers, debenture holders, preference and ordinary shareholders, creditors, and the public. The auditor should ascertain that these parties receive protection, that Company Law relative to the statement is followed, and that the accounts as presented are completely informative. If in his opinion the information conveyed does not enable the shareholders to ascertain the true position of the company and the value of their shares he must qualify his report.

In deciding upon the set-up of statements the accountant should remember that the primary consideration is that the interests of shareholders are protected adequately; other interests, including those enumerated above, are secondary considerations. The latter should receive complete satisfaction by the auditor if they do not come into conflict with those of shareholders. Balance sheets will vary according to the company for which they are prepared and according to the use to which they are put. They have obvious limitations, the chief of them being that they are the responsibility of the management and that the auditor cannot always persuade this group of individuals to adopt his views. These limitations are not always understood by statement readers. Some of the criticisms concerning company balance sheets, coming from shareholders, bankers, etc. cover:[38]

1. Many reconstructions take place in companies with no indication of write-down of assets on the balance sheet.
2. No indication is given of the break-up value of the assets.
3. Omnibus headings occur on many statements.

[36] Plender, Lord, *Some Observations on Company Balance Sheets*, London, Gee and Co., 1932, p. 2: "No form of annual accounts submitted to shareholders of a public company, no matter how complete or how carefully drawn up, can be necessarily assumed to disclose fully every element, either of strength, or of weakness, in a company's affairs." Withers, Hartley, investing Simplified, London, Thornton Butterworth, Ltd., 1934, pp. 60–69: "Company reports though they seem at first sight to be informative are in fact all the more misleading owing to the necessary omission from them of any information as to the skill in management and the qualities of the men who run the show."

[37] Plender, Lord, Address to the Students' Society of London, *Accountant*, May 14, 1932, pp. 665–669.

[38] A digest of Garnsey, Sir Gilbert, *Limitations of a Balance Sheet*, London, Gee and Co., 1929, p. 41.

4. There is lack of data about investments in subsidiaries.
5. Concealment of over or under valuations of accounts occurs.
6. Insufficient information is given as to profits.
7. It is impossible to value shares from information furnished by statements.
8. There is lack of a standardized form as a basis for comparison between companies.

In the preparation of the balance sheet accountants are allowed to rely upon officials' statements and to accept information from them in the absence of suspicious circumstances; particularly are they allowed to rely upon the internal system of check in force in the company. Secretive balance sheets still exist in England, as undoubtedly secrecy exists in the minds of Englishmen, but through the efforts of the accounting profession much of this feeling is being broken down.[39] A balance sheet, such as the following, which is of a well known trading concern, would not occur so frequently today in England as formerly; the lumping of goodwill with other items is now specifically prohibited by Section 124 (2) (c). The following balance sheet illustrates the use of omnibus headings:[40]

Share Capital:
  500,000 preference shares
  500,000 ordinary shares
4½% Mortgage Bonds
Trade and other Creditors
Reserve Account
Profit and Loss Account
Goodwill, freehold and leasehold land, building, machinery, plant
Stock in trade, trade debtors, bills receivable, investments, cash

It is still legal to lump together on an English balance sheet land, buildings, plant machinery, ships, water transports, copyrights, development account and inventments. And stock, stores, debts, work in progress, unfinished contracts, bills and cash. Directors may, under existing conditions, utilize any of the following obscure approaches to accounts.[41]

1. Use of technical language which though conveying meaning to accountants and directors may convey another meaning to investors and financial experts.
2. Lumping together of assets the value of which is expressed in one or more aggregate figures, the reader of the statement not receiving information as to the composition of the items combined.
3. Employment of systems of valuation which do not agree with statement values under certain conditions.
4. Omission of real relation of company's profit-and-loss account to current earnings.
5. Use of secret reserves.
6. Omission of information regarding subsidiaries.
7. Failure to give information regarding contingent liabilities.
8. Omission of data occurring between date of statement and date of presentation to shareholders.

The major difficulty faced by the English auditor is that he frequently cannot improve the standards of accounting pursued by company directors for if the accounts conform with the minimum legal requirements imposed by the Companies Act 1929 he cannot interfere with the views of the board in these matters.

PROFIT-AND-LOSS ACCOUNTS

As there are no legal requirements as to the form and content of the profit-and-loss account in England, except that as stated in Section 128 of the Companies Act 1929 the total of the amount paid to directors as remuneration for their services inclusive of all fees, percentages, or other emoluments, paid or receivable by them by or from the company or by or from any subsidiary company must be shown by the accounts of the company, and since this statement is not required to be circulated

---

[39] This view is substantiated by Loudon, John, "Tendency to Give Shareholders More Information," *Accountant*, Dec. 10, 1938, pp. 801–808.

[40] Tovey, Philip, *Balance Sheets*, London, Sir Isaac Pitman and Sons, Ltd., 1931, pp. 1–10.

[41] A summarization of Samuel, Horace B., *Shareholders' Money*, London, Sir Isaac Pitman and Sons, Ltd., 1933, pp. 230–314.

among the shareholders of the company, more reforms are needed in its preparation than apply to the balance sheet.[42] There is no obligation to distinguish between operating income of a company and that income which accrues to it through its investments. Some such distinction should be made in the profit and loss account. It has been suggested that this account should be separated into trading, income from investments, transfers from and to reserves, profits on sales of unusual items, depreciation, etc.[43] To have a credit item in the profit-and-loss account composed of trading profits, dividends from subsidiaries, and interest on investments does not furnish investors with sufficient information concerning the operating profits and outside profits of the business; if this item is stated to include an unnamed amount of reserves not required the lack of information is particularly emphasized. H. L. H. Hill speaking for the Institute as long ago as 1932 stressed the necessity for companies to furnish their shareholders with profit-and-loss accounts which gave them facts concerning the progress of their company. He felt that the claims of shareholders had not received adequate recognition and that the danger from publishing more informative accounts had been overstated.[44] Auditors might well strive to secure adoption of higher standards of accounting than what has been outlined by statutory enactments.[45] It is probable that the Companies Act 1929 should make the accountant legally responsible for the accuracy of both the balance sheet and the profit-and-loss account.[46] He should be required to express his opinions as to whether or not both of these statements are properly drawn up so as to exhibit a full and fair view of the true state of the company's affairs. The legal statement of his responsibility would rectify the criticism frequently heard in England regarding the attitude of the Institute of Chartered Accountants in advising pressure to be exerted upon directors rather than striving for amendment of existing legislation.[47] The attitude of this organization

[42] Section 123 (1): The directors of every company shall at some date not later than 18 months after the incorporation of the company and subsequently once at least in every calendar year lay before the company in general meeting a profit-and-loss account, or, in the case of a company not trading for profit, an income and expenditure account for the period, in the case of the first account, since the incorporation of the company, and, in any other case, since the preceding account, made up to a date not earlier than the date of the meeting by more than 9 months, or, in the case of a company carrying on business or having interests abroad, by more than 12 months. (2) The directors shall cause to be made out in every calendar year, and to be laid before the company in general meeting, a balance sheet as at the date to which the profit-and-loss account or the income and expenditure account, as the case may be, is made up, and there shall be attached to every such balance sheet a report by the directors with respect to the state of the company's affairs, and the amount, if any, which they recommend should be paid by way of dividend, and the amount, if any, which they propose to carry to the reserve fund, general reserve or reserve account shown specifically on the balance sheet. Penalties for failing to comply with this section are also included.

[43] Comments in the *Accountant*, May 7, 1932, pp. 623–645.

[44] Cutforth, A. E., *Public Companies and the Investors*, London, G. Bell and Sons, Ltd., 1930, p. 67: "A full profit-and-loss account showing gross sales or earnings of a business and the various classes of expenditure analyzed according to their nature is very seldom submitted by a public company to its shareholders."

Accountant, Aug. 6, 1931, pp. 195–196: "Shareholders now demand if not an exact statement of the results of current trading, yet an assurance that the results disclosed by the accounts of the year are not widely different from those accruing from ordinary trading processes of the year."

[45] *Accountant*, Apr. 30, 1938, p. 582: "In this branch of accounting (profit-and-loss account) development of technique and progress of ideas is most to be looked for, particularly in England where the timidity of statute law condones a standard of disclosure which would be laughable were it not dangerous."

[46] Plender, Lord, "Presidential Address to Chartered Accountants' Students' Society in London," *Accountant* May 14, 1932, pp. 665–669: "The two (balance sheet and profit-and-loss account) cannot be divorced and an auditor who reports, after due examination, on a balance sheet and does not examine with equal circumspection the profit-and-loss account to satisfy himself as to its correctness, or fails to report thereon as to irregularities, incompleteness or other special traits in its composition, might be held to have failed in his duty."

[47] Dillman, Sir Harold, "The Ethics of Accountancy," *Accountant*, April 30, 1938, pp. 603–606: "It would assist the profession enormously if there was an assurance of a vigorous and unified policy within the profession on major issues; those against whom the crusade was conducted could not fail to be more amenable."

toward the profit-and-loss account is contained in the statement of its Counsel:

> In our opinion having regard to the fact that the balance sheet contains as one of its items the balance brought in from the profit and loss account, the auditors cannot disassociate themselves from all responsibility for the correctness of that account and there may be cases in which it would be incumbent upon them to draw the attention of the shareholders to any feature of that account which in their view included anything of an improper or misleading character.

The Incorporated Accountants have always favored amendment of existing statutes relative to the profit-and-loss account. Such amending legislation would involve the following considerations:[48]

1. The profit-and-loss account should show the true balance of the profit and loss for the period covered.
2. In the profit-and-loss account any debits or credits unusual in character, together with reserves for previous periods no longer required should be stated separately.
3. Free reserves should be disclosed on the face of the balance sheet.
4. Where the holding company has investments in subsidiaries there should be stated on the face of the account of the holding company the total amount of ascertained profit and loss of the subsidiary pertaining to the interest of the holding company in so far as such profit and loss has not been brought into consideration in the profit-and-loss account of the holding company.

Henry Morgan, one of the leading members of the Society of Incorporated Accountants and Auditors, has stated that he believes the profit-and-loss account of a company should be true, it should be correctly stated, and it should not convey a misleading impression as to the results of the company's business. He contends that most English practitioners would report upon any improper or misleading part of the profit-and-loss account, and that while there is difficulty, undesirability and even impossibility of laying down rules for the form and content of this account, the accounting profession should be able to formulate general principles for it. As responsibility from the moral angle exists for the account, it should be made into legal responsibility, the accountant being legally required to report upon it.

The value of the profit-and-loss account to investors is dependent upon the accounting methods followed by the issuing company and by the changes which the auditor is able to bring about in its form and content through suggestions to directors. If the auditor's position were further strengthened he could exercise more influence without fear of losing his position. Readers of the London *Times* have become so incensed by company practices from time to time and particularly on the occasion of the Royal Mail trial that in letters to that paper they have made numerous suggestions as to company audits. These include:

1. The non-removal of auditors without consent of the Board of Trade which would receive evidence on both sides of the case.
2. The transfer of the duty of auditing company accounts to a governmental department.
3. The performance of the regular audit and the biennial audit by two different firms of accountants.
4. The illegality of appointing the same auditor for three years in succession.
5. The arrangement of public companies in groups with auditors rotated among them.

The London *Times* itself has stated that the solution of the problem of company accounts is to ascertain that information necessary to give shareholders an adequate and true picture of the company should be voluntarily provided by the directors under the guidance of the auditors rather than enforced by legislative measures. If this form of solution is not effective additional legislation will have to be enacted.

---

[48] Morgan, Henry, "Accountants' Responsibility for the Balance Sheet and the Profit-and-Loss Account from the British Point of View," *Accountant*, Sept. 9, 1933, pp. 425–435.

It has been suggested that improvements in presentation of information would include: more adequate data given concerning subsidiary companies; the yearly showing of the actual amount of depreciation; division of debts into current and fixed; the provision of market values of investments; the separation of English and foreign cash; the grouping of fixed and floating assets; the selection of a comparable basis for each year's profit. The present state of affairs concerning English statements would be improved if there were attached to each balance sheet a brief summary of the financial position of the company as shown by the balance sheet; a profit-and-loss account should be included in tabulated form to cover the operations for a period of several years with all non-recurring items separated in it.[49] Under conditions existing in England shareholders must present their views regarding full publicity of income data to the company's directors and the chairman of the company can then present the matter at the annual meeting. If the majority of the shareholders present wish more information they can indicate their wishes—otherwise the degree of disclosure in operation in the company will remain as formerly.[50] Lord Plender believes that the degree and extent of income account information cannot be specified by law as disclosure will depend on the type of the business, its methods of trading, and any other conditions affecting its operations. It is possible to find in the literature in the field of profit-and-loss accounts expressions ranging from the foregoing to those members of the Institute who urge complete and full disclosure of income account data. Many English accountants admit the defects in the law and urge reforms in the requirements for the profit-and-loss account. Two features of such accounts should be emphasized: they should be on comparable yearly bases and abbreviated statements should be avoided. A typical English profit-and-loss account follows which well illustrates the unfortunate abbreviated feature of modern accounts except in exceptional cases:[51]

To directors' renumeration
To provision for depreciation
To interest on debentures
To income tax
To balance being profit for year
By profit from trading account after meeting working expenses
By income from investments

English accountants have no legal responsibility for building up the income figure. A single item may contain operating results, dividends, non-recurring income; neither the amount nor the method of calculating depreciation need be given. Dependence is placed upon the ethics of the directors and the auditors rather than upon the written law in regard to profit-and-loss account disclosures.

The first decision of any importance in England as to the responsibility of the auditor for the profit-and-loss account was handed down in the Royal Mail Case. On the basis of this case it appears that the profit-and-loss account should present a true and correct view of the profits of the business for the period under review with unusual items separated from those of a normal, recurring nature.

An outstanding member of the Institute, F. R. M. de Paula, stresses the necessity for the profession to lay down general

[49] Stamp, Sir Josiah, *Accountant*, June 4, 1932, p. 776: "The truth cannot be derived from the modern balance sheet so vaunted for its prudence, but prudence is just as possible without departing from what a balance sheet ought to be—a faithful record of the employment of the total capital invested in the business, whether an original outlay or retained profits from which the true story of profit on invested capital can be determined. Has the shareholder who wishes to sell his holding no right as to some real knowledge or value of what he is selling?"

[50] Greenwood, Thomas, *Shareholders and Auditors*, London, Gee and Co., 1933, p. 15.

[51] Cutforth, A. E., *Public Companies and the Investor*, London, G. Bell and Sons, Ltd., 1930, pp. 165–172.

principles for the profit-and-loss account. He feels that a trading account should be submitted indicating the calculation of gross profit, with the final ascertainment of net profit and an appropriation account.[52] The English profession appears to be divided as to whether or not definite legislative measures should be enacted for the profit-and-loss account. If the auditor can be depended upon morally to discharge his duty of furnishing the public with the desired information in this account, and if his influence is great enough with directors and his position sufficiently secure, many accountants would feel that no amendment to existing law is necessary. Legislation would indicate to the accountant the scope of his duties and his responsibilities as to this account but it would, also, remove from him much of his discretionary powers and personal initiative. The English profession might well make a definite effort to set up criteria for judging profit-and-loss accounts and formulate principles to underlie them. Accountants would then be able to ascertain whether or not existing profit-and-loss accounts are sufficiently explicit and whether or not they convey misleading impressions to their readers.

CONSOLIDATED STATEMENTS

Although many reforms were introduced in England by the Companies Act 1929 the subject of the statements of holding companies and their subsidiaries was not satisfactorily settled. Under contemporary legal regulations holding companies are not required to publish a consolidated balance sheet or separate statements for their subsidiaries. The provisions of the Companies Act which cover holding companies are Section 125 which states that assets consisting of shares in subsidiary companies must be set out separately in the balance sheet and Section 126 which covers the requirements for statement preparation.[53] The important aspects of this Section include the facts: that it is not necessary to specify the actual profits or losses of a subsidiary, or the actual amount of any part of such profits or losses which has been dealt with in any particular manner; that if the auditor's report on the balance sheet of a subsidiary company does not state that all information was obtained and that the balance sheet properly drawn up the statement annexed to the balance sheet of the holding company must state the qualifications; that the profits and losses of subsidiaries are to be those exhibited by the accounts within the period covered by the holding company's accounts, or if no subsidiary accounts are available the profits or losses shown by the last previous accounts may be used; if the directors of the holding company did not obtain the necessary information for the preparation of the statement, the directors signing the balance sheet must make a report in writing to be annexed to the balance sheet in lieu of the statement.

These then are the provisions for holding and subsidiary accounts prescribed by the Companies Act 1929, a subsidiary

[52] De Paula, F. R. M., *Principles of Auditing*, London, Sir Isaac Pitman and Sons, Ltd., 1936, pp. 57–75.

[53] Section 126 (1): Where a company holds shares either directly or through a nominee in a subsidiary company or in two or more subsidiary companies there shall be annexed to the balance sheet of the holding company a statement, signed by the persons by whom in pursuance of Section 129 of this Act the balance sheet is signed, stating how the profit and losses of the subsidiary companies . . . the aggregate profits and losses of those companies have, so far as they concern the holding company, been dealt with in, or for the purposes of, the accounts of the holding company, and in particular how, and to whether extent—a. provision has been made for the losses of a subsidiary company either in the accounts of that company or of the holding company, or of both; and b. losses of a subsidiary company have been taken into account by the directors of the holding company in arriving at the profits and losses of the holding company as disclosed in its accounts. Provided that it shall not be necessary to specify in any such statement the actual amount of the profits or losses of any subsidiary company, or the actual amount of any part of any such profits or losses which has been dealt with in any particular manner. (2), (3), and (4) define what constitutes profit.

being defined in Section 127 as a company in which all the assets or part of its shares are held by another company directly or through a nominee. The amount of shares held at the time of the preparation of the holding company accounts must be more than 50% of the issued share capital of the other company or enough to entitle the company to more than 50% of the voting power of the company or the holding company must have the power (not being power vested in it by virtue only of the provisions of a debenture trust deed or by virtue of shares issued to it for the purpose in pursuance of these provisions) directly or indirectly to appoint the majority of the directors of that other company. If a company in the ordinary course of its business lends money on shares in another company as security no account should be taken of the shares so held in deciding whether the company is a subsidiary or not.

Consolidated balance sheets and profit-and-loss accounts are not used widely in England although there is a decided trend toward their employment.[54] Although the Companies Act states that the auditor must specify how the total profits or losses of subsidiaries have been dealt with in the accounts of holding companies and whether the losses have been provided for by either the holding or the subsidiary company there is no requirement that the amount of the profits or the losses be disclosed. The Company Law Amendment Committee carefully examined the state of affairs existing relative to consolidated statements and held against the publication of such statements for holding companies.[55] The essential consideration is to ascertain that shareholders of holding companies are adequately and correctly informed of the condition and operations of their subsidiary companies.[56] It has been stated by one accountant that every English holding company should be required to publish in addition to its individual accounts an audited balance sheet and profit-and-loss account incorporating the accounts of its subsidiaries.[57] Under the existing legal requirements wherein the holding company is not required to show the earnings of the group and where the balance sheet is confined to that of the holding company with investments in, and advances to and from subsidiaries with their bases shown separately there is no revelation of the financial position of the entire group of companies or of the subsidiaries, no indication of what the investment in the subsidiaries represents, what proportion of the subsidiary assets are fixed and current, what the liabilities of the subsidiaries consist of, or what provision has been made for reserves for subsidiary companies. F. R. M. de Paula holds the opinion that there should be prepared by the auditor a consolidated statement of earnings and a consolidated statement of assets and liabilities either of the whole group of companies or of subsidiary and sub-subsidiary companies as a

[54] Stanley W. Rowland (Chartered) recently referred in an address to the field for discussion that exists in England as to the alleged "right" of the body politic to information in competition and that other "right" enjoyed by business men to manage their own affairs. He applied this thought to the holding company's rise in importance and to the lag in legislative measures covering it. He held that the accounting profession should inform the public mind concerning such matters and arouse public opinion. Such a course would in the long run be more effective in producing changes in accounting practices than Acts of Parliament.

[55] Company Law Amendment Committee Report, 1926, Cmd. 2657: "We do not agree that the publishing of consolidated or combined balance sheets for the whole group of companies should be made compulsory. Many holding companies have adopted the practice already and we consider that the matter should be left to the shareholders to make such requirements as to the form of their company's accounts as they may think proper."

[56] De Paula, F. R. M., "The Form of Presentation of the Accounts of a Holding Company," *Accountant*, March 11, 1939, pp. 325–332: "From the ethical and commercial point of view the publication of full and informative accounts is in the long run a wise policy." Dunlop accounts are referred to as models for holding companies.

[57] Binder, E. H., *Holding Companies Profit and Loss Accounts*, London, Gee and Co., 1933, p. 19.

group. When an item in a balance sheet is titled "Investments in Subsidiary Companies" no indication is given as to the assets of these companies and the reader has no idea as to whether they are current or fixed. Furthermore, the law supports such a presentation.

Comparatively few English companies publish consolidated statements; Imperial Chemical Industries follow this practice; Lever has no combined balance sheet of any kind; Dunlop is one of the few companies that publishes a consolidated profit-and-loss account. William Cash has suggested that the auditor can present the accounts of holding companies by means of a consolidated balance sheet or can publish the accounts of the holding company and furnish detailed accounts of subsidiaries or can furnish separate summarized statements of profit and loss of all subsidiary companies. The disclosure of the assets and liabilities as well as the operations of subsidiary companies is vitally necessary; whatever method can be used to attain this objective should receive the English auditor's serious attention. The introduction of the practice that every English holding company must now state in its balance sheet the total amount of its interest in subsidiary companies, distinguishing between the amounts owed by them and the amounts owed to them, with the amount owing by holding companies to their subsidiaries separated from other liabilities on the holding company balance sheet, is a reform that is the resultant of the statute, as is the requirement that a statement must be furnished as to how the total profits and losses of subsidiaries have been dealt with by the holding company. This is a step forward but it is not sufficient. Under existing conditions it is unnecessary to disclose the names of the subsidiaries; the actual amount of either the profits or losses of subsidiaries need not be mentioned by the holding company, the directors being required only to state how the losses have been handled. There is no necessity to declare the amount of profits or losses which have been accumulated by subsidiaries. There is no legal requirement that each holding company must submit to its shareholders a consolidated balance sheet or that it must circulate with its own balance sheet copies of the balance sheets of its subsidiary companies.

As legal requirements do not specify the length to which auditors endeavor to protect the interests of shareholders of holding companies by individually and through their professional organizations urging their clients to adopt a greater degree of disclosure than the law requires.[58] A minimum moral requirement for auditors of holding companies is that they should advise their clients to prepare a consolidated balance sheet and a consolidated profit and loss account.[59] They might state that the statements of the holding company should be accompanied by statements of each subsidiary. Three methods have been suggested for presenting information of holding companies. These are not substitutes for the legal accounts. They include:[60]

1. Publication simultaneously of separate balance sheets and profit and loss accounts of all subsidiary companies.
2. Publication of a statement giving a summary of the aggregate assets and liabilities of all subsidiaries taken together.

---

[58] Samuel, H. B., *Shareholders' Money*, London, Pitman and Sons, Ltd., 1933, pp. 326–329: "The official policy of the Institute of Chartered Accountants is to refrain from laying down specific rules of conduct but to endeavor to lead directors gently by the hand to higher ethical planes contrasts oddly with the authoritative exposition of the defects of the law by recognized heads of the profession and the desire to reform which some of them have expressed with varying degree of emphasis."

[59] See Binder, B. H., *Holding Companies' Profit and Loss Accounts*, London, Gee and Co., 1933 and Robson, T. B., *The Construction of Consolidated Accounts*, London, Gee and Co. 1936 for English methods of consolidation.

[60] Garnsey, Sir Gilbert, *Holding Companies and Their Published Accounts*, London, Gee and Co., 1936, pp. 31–33.

3. Publication of a consolidated balance sheet and a consolidated profit and loss account.

ACCOUNTANTS' CERTIFICATES

It has been previously stated that the English accountant recognizes a responsibility issuing from a moral sense of duty which goes far beyond the legal requirements of the particular situation. This is especially true when the certificate of the company under audit is being prepared, for at that time the auditor declares to the public what his examination has and what it has not covered. In England the auditor does not certify the balance sheet but is required by law to report upon it to the shareholders of the company. The framework of the auditor's report is provided by Section 134 of the Companies Act 1929. It is a statement of fact in so far as obtaining information and explanations is concerned, and a statement of opinion as to whether the balance sheet is properly drawn up. The usual report reads as follows:

> To the Members of ——— Co., Ltd.:
>
> We report to the members as follows: We have audited the above balance sheet dated. . . . We have obtained all the information and explanations we have required. In our opinion the balance sheet is properly drawn up as to exhibit a true and correct view of the state of the company's affairs according to the best of our information and the explanations given us and as shown by the books of the company.

This report is ordinarily placed on the balance sheet; if it is too lengthy for this placement it is attached to it with a reference to the report endorsed on the balance sheet. The report is read at the general meeting of the company and must be open to inspection of members.[61] The accountant must satisfy himself that statutory requirements as to accounts and statements are fulfilled before he prepares his report. If he does not agree with the management about the form or content of statements, and if the difference is of import, he must qualify his report to this extent. He is not allowed by law to substitute his judgment for that of management, and in certain cases must give way before it.

English auditing procedures are fundamentally the concern of practitioners themselves rather than of the law. Minimum requirements for the balance sheet are stated in the Companies Act 1929 and on file at Somerset House on the Thames is a minimum amount of information in regard to all registered companies which the public may utilize. English shareholders as a general rule receive more information than that filed at Somerset House. As auditors owe their primary duty to shareholders they are striving to arrive at a formulation of principles underlying the preparation of profit-and-loss accounts, and the accounts and statements of holding companies and their subsidiaries, since the law gives little definition of the principles to apply to these cases. If the profession can lay the ground work in such matters the law can later embody these principles in amendments to existing legislation, if such a course in the view of all circumstances appears advisable. The English accounting profession endeavors to uphold higher standards than those set by the present laws in order that its protection of the rights of shareholders may be complete and effective.

[61] In the London and General Bank Case it was held that: "An auditor who gives shareholders means of information instead of information does so at his peril, and runs the very serious risk of being held judicially to have failed to discharge his duty. The duty of the auditor is to convey information not merely to arouse inquiry. Also it was the duty of the auditors (in this case) to convey in *direct* and *express* terms to members any information which they thought proper to be communicated."

ACCOUNTING CASES

ALLAN J. FISHER

INSPIRATION CONSOLIDATED COPPER COMPANY: NET INCOME WITHOUT DEDUCTION FOR DEPLETION: CONTROL THROUGH MINORITY STOCK OWNERSHIP

While other cases in the ACCOUNTING REVIEW have considered the matter of depletion policy,[1] an entirely different viewpoint is expressed in a prospectus recently issued by the Inspiration Consolidated Copper Company. The latter company was incorporated in Maine, on December 18, 1911, to own, operate, and develop mines, water rights, water power, mineral and other lands, and to own and operate mills, power plants, reduction works, and railways.[2] The company started commercial operations in June, 1915, and continued such operations until May, 1932, when the depression necessitated a shutdown of slightly more than three years, although sales and deliveries of copper on hand were continued. On September 18, 1935, plant operations were resumed. The company produces electrolytic copper, cement copper, and copper concentrates. The ultimate smelting and refining of much of this copper is done in plants of the International Smelting and Refining Company, a subsidiary of the Anaconda Copper Mining Company. The relationship between the Inspiration Consolidated Copper Company and the Anaconda Copper Mining Company will be discussed later in this article.

In the latter part of 1939 the Inspiration Consolidated Copper Mining Company issued a prospectus in connection with the registration of $5,910,000 of First Mortgage Convertible 4% Bonds due April 1, 1952, the proceeds of which, along with other available cash, were to be used to retire $7,000,000 of promissory notes, $5,000,000 of which were held by three New York banks,[3] and $2,000,000 of which were held by the Anaconda Copper Mining Company. Included in the prospectus, dated December 5, 1939, was an accountants' certificate signed by Pogson, Peloubet & Co. which contained the following expression of opinion concerning the depletion policy of the company:[4]

> The practice of the company in computing its net income or net loss without deduction for depletion of metal mines is in accordance with accepted accounting procedures in the industry engaged in the mining of copper, and is in agreement with long established and consistently maintained accounting practices and procedures of the company and others similarly situated, and the company is advised by counsel that such procedure is in accordance with legal requirements. While it is recognized in principle that amortization of cost of fixed assets proportionate to their loss of value through exhaustion, wear and tear or obsolescence is generally shown as a deduction in profit and loss statements, the available data, in our opinion, is not adequate to permit a calculation of depletion based on cost which would be other than arbitrary and uncertain, and for this reason, as well as for the reason that the company is advised that legal requirements for determining distributable earnings of this company do not include a deduction for depletion, the company has consistently followed the practice set forth above of computing its net income without deduction for depletion.
>
> From the inception of operations to September 30th 1939, 1,565,155,534 pounds of copper have been produced from the company's properties and, based upon estimates made by the company's engineers, the ore reserves of the company contain

---

[1] Homestake Mining Company case, March, 1940, issue; Cerro de Pasco Copper Corporation case, current issue.

[2] Registration Statement, SEC File 2-4235-1-1.

[3] These three banks, with the respective amounts of notes held, were as follows:

Guaranty Trust Company of New York	$2,000,000
The National City Bank of New York	2,000,000
The Chase National Bank of the City of New York	1,000,000

[4] SEC File 2-4235-1-2, Prospectus, pp. 27–28.

at September 30th 1939 approximately, 1,274,655,690 pounds of recoverable copper, exclusive of copper that can be recovered, after the exhaustion of the above mentioned ore reserves, by leaching in place the caved areas from which ore has been mined. On the basis of these quantities the company's ore reserves contained, therefore, at the inception of operations at least 2,839,811,224 pounds of recoverable copper, being the sum of the copper produced to September 30th 1939 and the amount estimated to be recoverable from the company's ore reserves at September 30th 1939. Mines and mining claims account appearing on the Balance Sheet amounts to $17,153,104.01, of which $14,967,520 represents the par value of shares issued for properties and $2,185,584.01 represents the cash cost of properties. If such total of $17,153,104.01 were to be allocated on a unit basis in direct proportion to estimated recoverable copper content of the company's mines at the time of acquisition, $9,303,262.55 of this cost would have been returned to stockholders as part of the cash distributions made to them and/or would be represented in the surplus of $2,634,271.73 as at September 30th 1939 arising from sales and deliveries of copper to that date, and $7,849,841.46 of such cost would be represented by ore remaining unmined and finished copper on hand at September 30th 1939. If depletion on the foregoing basis had been deducted there would result a deficit of $6,668,990.82 and the amounts of depletion in respect to copper deliveries for the respective years would have been: 1936, $345,790.00; 1937, $525,326.63; 1938, $204,337.97 and for the nine months ended September 30th 1939, $199,899.19. The foregoing basis allocates to the copper mined in the first year of the life of the property the same cost as is allocated to the copper which would be mined in the last year of its life, some 40 or more years later, without any distinction between different grades of ore and without making any allowance for differences in cost of production and other variable factors, and is purely arbitrary. In our opinion, adequate data on which to base any sound allocation of the so-called cost to copper as mined cannot be obtained and no representation is made that the assumptions on which the foregoing figures are prepared are correct, that the methods on which they are calculated are sound, nor that the results of the calculations represent the facts at the dates as of which they are made. Furthermore, attention is directed to the fact that the amount at which mines and mining claims are carried is in great part based upon the par value of stock issued, which did not necessarily represent the value of the property at the time of acquisition.

While both the difficulty of computing accurately the amount of unit depletion, giving full weight to all the objections raised, and the legality of declaring dividends out of income without deduction of depletion may be conceded, the validity of failing to make any provision for depletion in published statements would not seem to be conclusively proved thereby. The prospectus includes income figures for the years 1936 to 1938 inclusive and for the first nine months of 1939 as follows:[5]

1936	$ 353,722.34 Profit
1937	1,899,661.41 Profit
1938	324,615.83 Loss
1939 (Nine months)	255,378.43 Profit

According to the calculations of Messrs. Pogson, Peloubet & Co.[6] if depletion were computed on a unit basis on the $17,153,104.01 representing the cash paid and par value of securities issued for mines and mining claims, the amounts applicable to these periods would have been:

1936	$345,790.00
1937	525,326.63
1938	204,337.97
1939 (Nine months)	199,899.19

If these figures are combined, a recomputation of operating results, admittedly constituting only a rough approximation, would give the results shown in the table on the opposite page.

The approximate accuracy of these calculations would appear to be substantiated by the fact that only in the year 1937 was any provision made for Federal income taxes, and the further note that "Federal income taxes for the taxable years up to and including that ended December 31st

[5] *Loc. cit.*, p. 31.

[6] The Inspiration Consolidated Copper Company refers to these calculations several times in its prospectus, but "The company makes no representation as to the correctness of either the method, basis or result of these calculations." (*Cf.* Note F to profit and loss statement and Note D to balance sheet.)

	1936	*1937*	*1938*	*1939 (Nine months)*
Reported profit or loss, without deduction for depletion	$353,722.34	$1,899,661.41	$324,615.83*	$255,378.43
Depletion deduction, on basis of accountants' calculations as indicated above	345,790.00	525,326.63	204,337.97	199,899.19
Profit or loss after deduction of depletion	$ 7,932.34	$1,374,334.78	$528,953.80*	$ 55,479.24

* Loss.

1937 have been determined by the U. S. Treasury Department and any amounts due thereunder have been paid. The Federal income tax return for the year 1938 showed no tax due and has not been audited. No provision has been made for Federal income taxes for the nine months ended September 30th 1939 as no taxable income is indicated for the period."[7] Apparently, therefore, there was no taxable income in either 1936 or 1939, although the reported figures showed profits for both periods.

The probable reason for the discrepancy between published profits and taxable income is indicated by the note on depletion which accompanies the profit and loss statements for the several years, and which reads in part:[8]

> In accordance with the established practice of the company depletion of metal mines is not included in cost of production, nor is any deduction from income or surplus made for depletion (although, in order to comply with the requirements of the Treasury Department under the Revenue Acts for the purpose of computing depletion, valuations of mining properties have been recorded on the books of the company but the results of those entries have been omitted from the current statements). No depletion, either on cost or on the Treasury Department valuation, has been charged on the Balance Sheet, or any of the financial statements in this Prospectus.

It is to be noted, however, that the stockholder is given no intimation either of the Treasury Department valuations (which are presumably March 1st, 1913 values for mining properties then owned[9]) nor of the depletion actually claimed in arriving at taxable income.

Not only is the profit-and-loss statement seriously affected by the failure to provide for depletion, but so also is the balance sheet. On September 30, 1939, the balance sheet showed $17,153,104.01 as the book value of mines and mining claims, out of a total of $28,719,572.24 of fixed assets and of $33,825,138.67 of total assets. On the same date capital stock outstanding was $23,639,340.00, and surplus showed a balance of $2,634,271.73. According to the calculations contained in the accountants' certificate, 1,525,155,534 pounds of copper out of an estimated original ore reserve of 2,839,811,224 pounds[10] had been extracted by September 30th, 1939. This represents more than fifty per cent of the estimated original ore reserves, yet mines and mining claims were still carried at the figures at which they were originally set up. If depletion on a unit basis, amounting to $9,303,262.55, had been provided and reflected in the balance sheet, the value of mines and mining claims would have been reduced to $7,849,841.46, the surplus would have been wiped out, and capital stock would have been reduced by $6,668,990.82, representing a return of capital, to $16,970,349.18.

It is of course true that the stockholder is put on notice as to the procedure which is being followed by footnotes to the financial statements, by the certificate cited above, and by such statements as "The values of property, plant and equipment shown are book values and are not in-

[7] Prospectus, p. 30 (Note E to Balance Sheet).
[8] *Ibid.*, p. 32 (Note F to Profit and Loss Statement).
[9] Cf. subsection (b) of Note D to Balance Sheet, *ibid.*, p. 30.

[10] This is exclusive of additional copper obtainable by leaching mined areas.

tended as a representation of actual present values or prospective future values thereof, or any values other than book values."[11] (It would seem that the latter should be a qualification to end all qualifications.) Nevertheless, when other companies find it feasible to deduct dividends out of depletion from capital stock,[12] and to show depletion deductions on their published profit and loss statements,[13] it appears that the stockholder could with justification ask that such important facts be revealed more clearly, rather than tucked away in footnotes or qualifications which are likely to be more or less unintelligible to the average layman.[14] The following quotation concerning depletion from the recently published "Introduction to Corporate Accounting Standards" by W. A. Paton and A. C. Littleton[15] seems to indicate that at least some members of the American Accounting Association would be very far from condoning any such corporate practice:

> A satisfactory standard of treatment calls for the systematic absorption of the cost of the wasting resource (due allowance being made for residual land value) as such resource is consumed or exhausted. A stock of mineral in the ground is much like an inventory of raw materials, and the cost thereof should be reflected in production cost as it is extracted and in cost of sales as it is marketed. The common practice of reporting depletion as an adjustment of net rather than as a direct charge to gross revenue is not satisfactory. Granting that the measurement of the periodic depletion charge is often fraught with serious difficulty, there is little excuse for not including a reasonable amount in charges to revenue.[16]

The Inspiration Consolidated Copper Company also provides an interesting instance of control through minority stock ownership. The relationship between the Inspiration Consolidated Copper Company and the Anaconda Copper Mining Company was suggested earlier. In its original registration statement, the former company disavowed the existence of control by Anaconda in the following terms:[17]

> While the Company disclaims any admission of the actual existence of effective control of the Company by Anaconda Copper Mining Company and any admission that Anaconda Copper Mining Company is its parent, the following information is given with respect to the relationship of Anaconda Copper Mining Company to the Company:
>
> Anaconda Copper Mining Company is the owner of 35,700 shares (3.02%) of the Capital Stock of the Company. Mines Investment Corporation, a wholly owned subsidiary of Anaconda Copper Mining Company, is the owner of 297,300 shares (25.15%) of the Capital Stock of the Company. The aggregate of the shares held by Anaconda Copper Mining Company and such subsidiary is 333,000 shares, or 28.17% of the Capital Stock of the Company. The By-Laws of the Company provide that 30% of the outstanding stock, exclusive of treasury stock, shall be necessary to constitute a quorum at meetings of stockholders.
>
> The Company is indebted to Anaconda Copper Mining Company in the principal sum of $2,000,000.00 on its promissory note which matures May 1, 1944. This note is secured by a pledge of $2,000,000.00 principal amount, First Mortgage 5% Bonds, Series A, due April 1, 1952.
>
> The Company is also indebted to Guaranty Trust Company of New York, The National City Bank of New York and The Chase National Bank of the City of New York in the aggregate sum of $5,000,000.00 represented by promissory notes bearing interest at varying rates and maturing over a period of four years from May 1, 1940, secured by a like principal amount of First Mortgage 5% Bonds, Series A, due April 1, 1952. These notes were delivered to Anaconda Copper Mining Company and endorsed by that Company to the above Banks. This endorsement guarantees

[11] Prospectus, p. 30, Subsection (c) of Note D to Balance Sheet "Property Plant and Equipment—Basis of Valuation."

[12] Cf. Homestake Mining Company balance sheet.

[13] Cf. Cerro de Pasco Copper Corporation profit and loss statements.

[14] It is of course true, as stated by Messrs. Pogson, Peloubet & Co., that other companies in the copper mining industry, notably the Anaconda Copper Mining Company and the Kennecott Copper Corporation, follow the same practices regarding property valuation and depletion as the Inspiration Consolidated Copper Company.

[15] American Accounting Association, 1940. This monograph represents an expansion of the "Tentative Statement of Accounting Principles Underlying Corporate Financial Statements" published in the ACCOUNTING REVIEW of June, 1936.

[16] *Loc. cit.*, p. 91.

[17] SEC File 2-4235-1-1.

the payment of principal and interest as such principal and instalments of interest respectively become due, whether by maturity as therein expressed, or by acceleration . . . .

Mr. William D. Thornton, one of six directors of the Company, is also one of nine directors of Anaconda Copper Mining Company, and a director and/or officer of certain of its subsidiaries. Mr. William Wraith, a director of the Company, is also a director and/or officer of certain subsidiaries of Anaconda Copper Mining Company. Messrs. Louis D. Ricketts, Joseph B. Cotton and Henry I. Carson, directors of the Company, are directors and/or officers of one of such subsidiaries. Mr. Thomas H. O'Brien, Vice-President, General Manager and director of the Company is also General Manager of the Miami (Arizona) Smelter of a wholly owned subsidiary of Anaconda Copper Mining Company.

In the first amendment to the registration statement, the initial paragraph above, disclaiming effective control by the Anaconda Copper Mining Company, was omitted, and after the statement of ownership of Inspiration Copper stock by Anaconda Copper Mining Company and its wholly owned subsidiary, Mines Investment Corporation, the following paragraph was inserted:[18]

"At the annual stockholders' meetings of the Company held in the years 1935 to 1939 inclusive the percentage of the outstanding stock voted at such meetings and the percentage of the outstanding stock owned by Anaconda Copper Mining Company and its subsidiary Mines Investment Corporation and voted at such meetings, were as follows:

Year	*% of outstanding stock voted*	*% of outstanding stock owned and voted by Anaconda Copper Mining Company and Mines Investment Corporation*
1935	46.41%	28.17%
1936	52.13%	28.17%
1937	51.15%	28.17%
1938	48.25%	28.15%
1939	50.56%	28.17%"

The effective control of Inspiration Consolidated Copper Company by the Anaconda Copper Mining Company is clearly indicated by these figures. In every one of the five years cited, more than fifty per cent of the outstanding stock voted was owned by Anaconda Copper Mining Company or its wholly owned subsidiary, Mines Investment Corporation.[19] Since only 30% of the outstanding stock is necessary to constitute a quorum according to the by-laws, the 28.17% owned by these two companies is alone almost sufficient to establish a quorum. The closeness of the relationship between the two companies is also revealed by the fact that of the $7,000,000 of promissory notes which were outstanding at the date of the prospectus, $2,000,000 were held by Anaconda Copper Mining Company, and the other $5,000,000 held by New York banks had been endorsed by the Anaconda Company, thereby guaranteeing the payment of both principal and interest. The existence of interlocking directorates among the Inspiration Company, the Anaconda Company, and the subsidiaries of the latter is also disclosed in the quotation from the original registration statement. The above cited facts constitute a further verification of the contention that a stock ownership of approximately 25% will usually be adequate to assure control of a corporation whose securities are at all widely distributed.

Cerro de Pasco Copper Corporation: Auditing of Foreign Subsidiaries; Inventory Valuation; Dividends from Subsidiaries

Several questions of interest in connection with the auditing of foreign subsidiaries, the valuation of inventories in nonferrous metal mining industries, and the treatment of dividends from wholly owned subsidiaries are presented in the financial

[18] SEC File 2-4235-1-2.

[19] It is also possible, if not probable, that at least some of the remaining stock voted was represented by proxies favorable to the management. However, control would be assured, even without such additional support.

statements and accompanying accountants' certificates of the Cerro de Pasco Copper Mining Corporation. The statements for 1935 and 1936 are particularly significant in this respect, inasmuch as it is in these years that the changes necessitated by the requirements of the Securities and Exchange Commission are most apparent.

The Cerro de Pasco Copper Corporation is a mining company, incorporated in New York on October 27, 1915, with a perpetual charter, and engaged in the business of mining and smelting in Peru, South America. Its principal products are copper, silver, gold, lead, bismuth, and zinc concentrates. The company also owns and operates a coal mine and two hydro-electric plants.[1]

Among the subsidiaries of the Cerro de Pasco Copper Corporation are the Cerro de Pasco Railway Company, a domestic company incorporated in New Jersey, and operating a railroad in the District of Junin, Peru; the Sociedad Minera Backus y Johnston del Peru, incorporated in Peru and engaged in mining, concentrating and smelting ores; the Empresa Desaguado de Morococha, also incorporated in Peru, and holding mine tunnel and drainage concessions; and the Sociedad Ganadera de Junin, likewise incorporated in Peru. The latter company was acquired by the Cerro de Pasco Copper Corporation in the process of settling claims for smoke damage inflicted by one of its smelters located at Oroya. The Sociedad Ganadera de Junin consequently owns large tracts of land, some of which are used for agricultural and pastoral purposes. Rather interestingly for a mining company, some 70,000 head of stock, chiefly cattle and sheep, are maintained on these lands, and the company sells meat, hides, wool, and butter locally in the mountains, and cattle and sheep on the hoof to the slaughter house in Lima, Peru. The Sociedad Minera Backus y Johnston del Peru, referred to above, has in turn Peruvian subsidiaries. It owns nearly all the stock of Cia Minera Santa Clara de Morococha and has a controlling interest in the Sociedad Minera Pesares.

Some of the problems raised by the auditing of foreign subsidiaries and of foreign operations of domestic companies and by the valuation of inventories of gold, silver, and of metals sold for future delivery, are indicated by the accountants' certificates for 1935, prepared by Lybrand, Ross Brothers and Montgomery. The original certificate for 1935, itself rather lengthy, read as follows:[2]

We have made examinations of the balance sheet of Cerro de Pasco Copper Corporation (Registrant only) and of the consolidated balance sheet of Cerro de Pasco Copper Corporation and its wholly owned subsidiaries as at December 31, 1935, and of the statements of consolidated income and surplus of Cerro de Pasco Copper Corporation and its wholly owned subsidiaries for the year 1935. In connection therewith, we have made an examination of the balance sheet of Cerro de Pasco Railway Company, a wholly owned domestic subsidiary, as at December 31, 1935, and of the related statements of income and surplus for the year 1935, and have received reports of chartered accountants located in Peru (hereinafter referred to as "chartered accountants") upon their examinations of the balance sheets of the wholly owned Peruvian subsidiaries, as at December 31, 1935, and of the related statements of income and surplus for the year 1935.

We have examined or tested accounting records and other supporting evidence maintained at New York for Cerro de Pasco Copper Corporation and its wholly owned domestic subsidiary and have obtained information and explanations from officers and employees of these two companies; we also received chartered accountants' reports upon their examinations or tests of the accounting records and other supporting evidence of these two companies maintained in Peru. General reviews of the accounting methods and of the operating and income accounts of the companies for the year were made by us, or, we were informed, were made by chartered accountants,

[1] SEC File 1-1518-1.

[2] The remaining material is primarily derived from SEC File 1-1518-2.

but detailed audits of the transactions were not made.

The names of the Peruvian subsidiaries, the financial statements of which have been included in the annexed consolidated financial statements upon the basis of reports received from chartered accountants upon their examinations of the financial statements of such subsidiaries, are as follows:

Sociedad Minera Backus y Johnston del Peru
Sociedad Ganadera de Junin
Empresa Desaguadora de Morococha

The annexed consolidated balance sheet includes \$3,829,266 or approximately 8.93 per cent of the total consolidated assets, and \$3,502,797 or approximately 7.43 per cent of the total consolidated liabilities and reserves, such amounts representing assets, liabilities and reserves of Peruvian subsidiaries. The annexed consolidated income account includes \$178,190, or approximately 4.39 per cent of the consolidated net income, representing the net income of such Peruvian subsidiaries for the year 1935.

In the cases of Cerro de Pasco Copper Corporation (registrant) and its wholly owned subsidiary, Cerro de Pasco Railway Company, records and other supporting evidence relating to certain assets and liabilities and to the details of changes in certain other such accounts and to details of income and expenses are kept in Peru and examinations or tests of such Peruvian records and evidence were made by chartered accountants. The reports received from such chartered accountants covering their examinations or tests of such records and evidence related to assets included in the consolidated balance sheet in the amount of \$4,134,708 or approximately 9.65 per cent of total consolidated assets, and to liabilities and reserves included in the consolidated balance sheet in the amount of \$554,493 or approximately 15.83 per cent of total consolidated liabilities and reserves. With minor exception, all sales of Cerro de Pasco Copper Corporation are made through the New York office of the company, with the result that while the detailed records and other supporting evidence relating to mining and smelting operations are maintained in Peru, the costs of such operations are charged against the New York office and the amount of net income shown on the Peruvian books of the company is relatively insignificant. In the case of Cerro de Pasco Railway Company, while all of its operations are carried on in Peru, the major portion but not all of its expenses are recorded on the Peruvian books of the company. Accordingly, the report of chartered accountants covering the operations of Cerro de Pasco Railway Company reflects net income of \$32,771, or approximately .81 per cent of consolidated net income, which amount is greater than the net income of the company after deducting certain expenses reflected only on the New York books of the company. Such examinations or tests by such chartered accountants supplemented or supported the examinations or tests made by us of accounting records and other supporting evidence of Cerro de Pasco Copper Corporation and its wholly owned subsidiary, Cerro de Pasco Railway Company, maintained in New York.

In our opinion, based upon such examinations and upon such reports of chartered accountants:

(a) The accompanying balance sheet of Cerro de Pasco Copper Corporation (Registrant only) in conjunction with the accompanying consolidated balance sheet of Cerro de Pasco Copper Corporation and its wholly owned subsidiaries, fairly presents, in accordance with accepted principles of accounting followed in the nonferrous metal industry and consistently maintained by the corporation during the year under review (except as to the inclusion in earned surplus of \$216,850 representing a portion of a dividend received from a wholly owned subsidiary, and distributed from earnings of such subsidiary prior to its acquisition by the corporation) its position at December 31, 1935 and

(b) The accompanying consolidated balance sheet and the related statements of consolidated income and surplus fairly present, in accordance with accepted principles of accounting followed in the nonferrous metal industry and consistently maintained by the companies during the year under review, the consolidated position of Cerro de Pasco Copper Corporation and its wholly owned subsidiaries at December 31, 1935 and the consolidated results of their operations for the year then ended.

This accountants' certificate was returned for amendment. It did not include the names of the chartered accountants whose reports had been received and relied upon, nor did any of such reports accompany the certificate. Moreover, the certificate contained no reference to the basis used for valuing inventories. The first amendment, reproduced below, endeavored to correct these defects.

We have made examinations of the balance sheet of CERRO de PASCO COPPER CORPO-

RATION (Registrant only) as at December 31, 1935 and of the related statement of surplus for the year 1935 and of the consolidated balance sheet of Cerro de Pasco Copper Corporation and its wholly owned subsidiaries as at December 31, 1935, and of the related statements of consolidated income and surplus for the year 1935.

In connection therewith, we examined or tested accounting records and other supporting evidence at New York for Cerro de Pasco Copper Corporation and its wholly owned United States subsidiary, Cerro de Pasco Railway Company, and obtained information and explanations from officers and employees of the companies; we also made a general review of the accounting methods and of the operating and income accounts for the year, but we did not make a detailed audit of the transactions. We received reports of Lee White, Howard & Co., chartered accountants (hereinafter referred to as the "chartered accountants") upon their examinations or tests of the accounting records and other supporting evidence in Peru of Cerro de Pasco Copper Corporation and its wholly owned United States subsidiary and upon their examinations of the balance sheets of the wholly owned Peruvian subsidiaries as at December 31, 1935 and of the related income and surplus accounts for the year 1935. Certificates of the chartered accountants relating to their examinations are annexed hereto. Certain of such certificates of the chartered accountants contain qualifications relating to observations made by them in their reports. In our opinion, no such qualifications are required with respect to the accompanying financial statements, either unconsolidated or consolidated.

The annexed consolidated balance sheet includes $3,829,266 or approximately 8.93 per cent of the total consolidated assets, and $260,167 or approximately 7.43 per cent of the total consolidated liabilities and reserves, such amounts representing assets, liabilities and reserves of the wholly owned Peruvian subsidiaries. The annexed consolidated income account includes $178,190 or approximately 4.39 per cent of the consolidated net income representing the net income of such Peruvian subsidiaries for the year 1935.

The reports received from the chartered accountants covering their examinations or tests of accounting records and evidence of Cerro de Pasco Copper Corporation and Cerro de Pasco Railway Company related to assets included in the consolidated balance sheet in the amount of $4,134,708 or approximately 9.65 per cent of total consolidated assets, and to liabilities and reserves included in the consolidated balance sheet in the amount of $554,493 or approximately 15.83 per cent of total consolidated liabilities and reserves. With minor exceptions, all sales of Cerro de Pasco Copper Corporation are made through the New York office of the company, with the result that while the detailed records and other supporting evidence relating to mining and smelting operations are maintained in Peru, the costs of such operations are charged against the New York office and the amount of net income shown on the Peruvian books of the company is relatively insignificant. All of the operations of Cerro de Pasco Railway Company are carried on in Peru and the major portion but not all of its expenses are recorded on the Peruvian books of the company. Accordingly, the report of chartered accountants covering the operations of Cerro de Pasco Railway Company reflects net income of $32,771 or approximately .81 per cent of consolidated net income, which amount is greater than the net income of the company after deducting certain expenses reflected only on the New York books of the company.

In our opinion, based upon such examinations and upon such reports of chartered accountants:

(a) the accompanying balance sheet of Cerro de Pasco Copper Corporation (Registrant only) in conjunction with the accompanying consolidated balance sheet of Cerro de Pasco Copper Corporation and its wholly owned subsidiaries fairly presents, in accordance with accepted principles of accounting followed in the nonferrous metal industry (inventories of metals sold for future delivery being carried at net selling prices and gold and silver being carried at market quotations as explained in the accompanying financial statements and the notes thereto) and consistently maintained by the company during the year under review (except as to the inclusion in earned surplus of $216,850 representing a portion of a dividend received from a wholly owned subsidiary and distributed from earnings of such subsidiary prior to its acquisition by the corporation) its position at December 31, 1935 and

(b) the accompanying consolidated balance sheet and the related statements of consolidated income and surplus fairly present, in accordance with accepted principles of accounting followed in the nonferrous metal industry (inventories of metals sold for future delivery being carried at net selling prices and gold and silver being carried at market quotations as explained in the accompanying financial statements and the notes thereto) and consistently maintained by the companies during the year under review, the con-

solidated position of Cerro de Pasco Copper Corporation and its wholly owned subsidiaries at December 31, 1935 and the consolidated results of their operations for the year then ended.

It will be noted that the chartered accountants, Lee White, Howard & Co., are named, that their certificates are annexed to the main certificate, and that the qualifications contained in the chartered accountants' certificates are not extended to the financial statements certified by Lybrand, Ross Brothers & Montgomery. The amendment also states that inventories of metals sold for future delivery are carried at net selling prices and that inventories of gold and silver are carried at market quotations. However, while the certificate states that such procedure is in accordance with accepted principles of accounting followed in the nonferrous metal industry, the accountants did not express their opinion concerning the propriety of such procedure. A second amendment was therefore required in which the wording of the final certification was changed to read as follows:[3]

In our opinion, based upon such examinations and upon such reports of chartered accountants:

(a) the accompanying balance sheet of Cerro de Pasco Copper Corporation (Registrant only) in conjunction with the accompanying consolidated balance sheet of Cerro de Pasco Copper Corporation and its wholly owned subsidiaries fairly presents, in accordance with accepted principles of accounting followed in the nonferrous metal mining industry (which differ from generally accepted accounting principles in that metals sold for future delivery are valued at net selling prices and inventories of gold and silver are carried at market quotations rather than upon the basis of the lower of cost or market, but which, in our opinion, are acceptable valuation bases for the nonferrous metal mining industry) and consistently maintained by the company during the year under review (except as to the inclusion in earned surplus of $216,850 representing a portion of a dividend received from a wholly owned subsidiary and distributed from earnings of such subsidiary prior to its acquisition by the corporation) its position at December 31, 1935 and

(b) the accompanying consolidated balance sheet and the related statements of consolidated income and surplus fairly present, in accordance with accepted principles of accounting followed in the nonferrous metal mining industry (which differ from generally accepted accounting principles in that metals sold for future delivery are valued at net selling prices and inventories of gold and silver are carried at market quotations rather than upon the basis of the lower of cost or market, but which, in our opinion, are acceptable valuation bases for the nonferrous metal mining industry) and consistently maintained by the companies during the year under review, the consolidated position of Cerro de Pasco Copper Corporation and its wholly owned subsidiaries at December 31, 1935 and the consolidated results of their operations for the year then ended.

In this second revision the accountants not only point out that the methods of valuing inventories in the nonferrous metal mining industry differ from generally accepted accounting principles, but express the opinion that such methods are acceptable in the industry.

The dividend treatment objected to throughout by the accountants is explained in a note to the balance sheet of the Cerro de Pasco Copper Corporation (parent company).[4] The Cerro de Pasco Railway Company, a wholly owned domestic subsidiary, declared a dividend of $1,425,000 in December, 1935. This dividend was divided into two parts, $755,267.62 (in accordance with United States income tax regulations) being considered as paid out of the March 1, 1913 surplus of the subsidiary and consequently credited to the investment account, and the remainder of $669,732.38 being credited to income by the parent company in 1935. The parent company was incorporated on October 27, 1915, and acquired its investment in the subsidiary on the same date. The dividend of $1,425,000 included

[3] The rest of the certificate duplicates the first amendment, with the exception of the inclusion of two words which were apparently omitted through oversight from the latter.

[4] Note (a) to Schedule I—Investment in Securities of Affiliates.

$972,117.95 paid out of surplus of the subsidiary at the date of acquisition, namely, October 27, 1915. The excess of this $972,117.95 over the March 1, 1913 figure of $755,267.62 constitutes the $216,850.33 which the accountants contend, and apparently with entire justification, should appear neither in the income account of the Cerro de Pasco Copper Corporation for 1935 nor in the earned surplus account as of December 31, 1935.

The effect of the policies concerning inventory valuation upon profits is revealed in footnotes to the consolidated income account. According to one such note, since the sales for 1935 included metals produced prior to January 1, 1936, for delivery on or after that date, but excluded deliveries of metals in 1935 sold in 1934 for future delivery, the gross profit for 1935 was $1,164,823 greater than it would have been if sales and cost of sales had included only selling prices and cost of metals delivered in 1935.[5] Conversely, the carrying of unsold inventories of gold and silver at market prices resulted in a gross profit for 1935 of $547,588 less than if the inventories had been carried at cost, exclusive of depletion.[6]

The original accountants' certificate for 1936 apparently covered the matter of foreign auditing satisfactorily, but made only an incidental reference to depletion in the final paragraph, did not mention the problem of inventory valuation,[7] and no longer referred to the dividend out of surplus at the date of acquisition of the Cerro de Pasco Railway Company. The pertinent part of the certificate read:

In our opinion, based upon such examinations, upon such reports of chartered accountants and upon the company's depletion method as explained in the accompanying financial statements and the notes appended thereto, (a) the accompanying balance sheet of Cerro de Pasco Copper Corporation (Registrant only) in conjunction with the accompanying consolidated balance sheet of Cerro de Pasco Copper Corporation and its wholly owned subsidiaries fairly presents, in accordance with accepted principles of accounting following in the nonferrous metal industry and consistently maintained by the company during the year under review, its position at December 31, 1936 and (b) the accompanying consolidated balance sheet and the related statements of consolidated income and surplus fairly present, in accordance with accepted principles of accounting followed in the nonferrous metal industry and consistently maintained by the companies during the year under review, the consolidated position of Cerro de Pasco Copper Corporation and its wholly owned subsidiaries at December 31, 1936 and the consolidated results of their operations for the year then ended.

The amended certificate remedied the above-mentioned defects in the following fashion:

Subsequent to December 31, 1933 depletion allowances relating to the principal mines were charged to income upon the basis of percentages of mine income as used for United States income tax purposes. Of the aggregate amount so computed for 1936, $269,219.83 was sufficient to make the accumulated depletion allowances equal to the book values of such principal mines and the balance of such percentage depletion in the amount of $1,169,480.30 was credited to earned surplus account.

In our opinion, based upon such examinations and upon such reports from chartered accountants:

(a) the accompanying balance sheet of Cerro de Pasco Copper Corporation (Registrant only) in conjunction with the accompanying consolidated balance sheet of Cerro de Pasco Copper Corporation and its wholly owned subsidiaries fairly presents, in accordance with accepted principles of accounting followed in the nonferrous metal mining industry (which differ from generally accepted accounting principles in that metals sold for future delivery are valued at net selling prices and inventories of gold and silver are carried at market quotations rather than upon the basis of the lower of cost or market, but which, in

[5] Footnote 4 to Consolidated Income Account for 1935.

[6] Footnote 5 to Consolidated Income Account for 1935.

[7] This omission can be explained by the fact that the accountants' certificate for 1936 was received by the Securities and Exchange Commission on June 12, 1937, whereas the first amendment to the 1935 certificate, which amendment mentioned inventory valuation but had to be still futher amended, was not received until June 26, 1937.

our opinion, are acceptable valuation bases for the nonferrous metal mining industry), except as to the use of the above described procedure of charging to the income account depletion allowances in excess of the amounts sufficient to make the accumulated depletion allowances equal to the book values of the related mines, and except as to the inclusion in earned surplus of $216,850 representing a portion of a dividend received in 1935 from a wholly owned subsidiary, and distributed from earnings of such subsidiary prior to its acquisition by the company, and consistently maintained by the company during the year under review, its position at December 31, 1936 and

(b) The accompanying consolidated balance sheet and the related statements of consolidated income and surplus fairly present, in accordance with accepted principles of accounting followed in the nonferrous metal mining industry (which differ from generally accepted accounting principles in that metals sold for future delivery are valued at net selling prices and inventories of gold and silver are carried at market quotations rather than upon the basis of the lower of cost or market, but which, in our opinion, are acceptable valuation bases for the nonferrous metal mining industry) except as to the use of the above described procedure of charging to the income account depletion allowances in excess of the amounts sufficient to make the accumulated depletion allowances equal to the book values of the related mines, and consistently maintained by the company during the year under review, the consolidated position of Cerro de Pasco Copper Corporation and its wholly owned subsidiaries at December 31, 1936 and the consolidated results of their operations for the year then ended.

This amendment describes the depletion procedure, objects to such procedure of charging to income depletion in excess of the amount necessary to make depletion allowances equal to the book value of related assets,[8] describes the methods of inventory valuation and approves such valuation as appropriate to the industry, and reinstates the qualification as to the inclusion in earned surplus of $216,850 of the dividend received in 1935 from the Cerro de Pasco Railway Company. Attention might also be directed to the fact that the qualifications applied to the statements of the parent company are, when pertinent, carefully repeated in full as applying also to the consolidated statements, rather than being included by implication, or dismissed with a brief reference to previously cited qualifications.

A final point of interest in connection with the conditions under which the agricultural land referred to earlier was acquired may be found in the following comment added to the general notes to the consolidated balance sheet for 1935 by the first amendment:

> The book amount of the farms of a consolidated subsidiary at the date of the registrant's acquisition of the investment therein was considered by the registrant as being $169,726.76 too high. Although no entry has been made upon the books of the subsidiary, the registrant has consistently consolidated the financial statements upon the basis of such reduced amount for the farms with a compensating reduction of $169,726.76 in consolidated earned surplus.

Winnebago Distilling Company: A Promotion

(*By* William Cooper)

The Winnebago Distilling Company was ordered by the SEC to withhold a proposed sale of capital stock because of misleading information in its registration statement. The Company had previously filled a registration statement in 1936 and when stop-order proceedings were instituted, it secured permission to withdraw and amend the statement. The amended statement appeared to be no better, and when the SEC again instituted stop-order proceedings the Company sought again to withdraw, but the Commission refused permission. Registrants do not have the abso-

[8] However, the charging of the percentage depletion to income is not uncommon in the nonferrous metal mining industry. See the Homestake Mining Company Case, Accounting Review, March, 1940. A question might be raised as to the propriety of crediting percentage depletion directly to the earned surplus account, rather than to a percentage depletion reserve, as does the Homestake Mining Company. Even though treated as a part of earned surplus, the latter segregation would appear to be desirable.

lute right to withdraw for:

> . . . the Act [the Securities Act of 1933] is designed through the imposition of penalties to insure fair dealing and good conduct—at the source—on the part of those who seek and obtain the use of the mails and other instrumentalities of commerce in the sale of securities to the public. To make the purpose effective, the Act provides in Section 24 that any person who wilfully makes an untrue statement of a material fact in a registration statement is guilty of a crime punishable by a fine of $5,000 or imprisonment for not more than five years, or both . . . the penalty provision would become [ineffective] if . . . the registrant who has got the benefit of registration may, when charged with fraud in its procurement, withdraw and put an end to the inquisitorial powers of the Commission and escape the consequences of his wrong on the ground that no investor has suffered.[1]

The present Company is the successor of Winnebago Distilling Company, Illinois. It has the authority to issue 125,000 shares of common stock—62,500 shares of Class A common stock at $10 par value, and 62,500 shares of Class B no-par common stock. "The entire block of Class B stock has been issued; all but 3,500 shares are held by promoters, officers, and directors . . . the registration statement . . . covers a proposed offering of the 62,500 shares of Class A common stock at a price of $10 per share."[2]

In 1939, the registrant applied to the Illinois Securities Commission for permission to sell 50,000 shares of its Class A stock, but the assets of the corporation were insufficient to cover the state's requirement that the company possess assets equal to at least 15% of the proposed stock offering. So the Fidelity Appraisal Company of Milwaukee, Wisconsin, was retained to make an appraisal of the company's properties with the understanding that they would be revalued upwards.

Winnebago Distilling Company owned two tracts of land near Elgin, Illinois. The first tract was 6.20 acres, and the second 10.70 acres. In 1930 the full tract was sold for $2,225; in 1932 it was conveyed to the Reinert Sand and Gravel Company for approximately $8,500 (payment being effected by the issuance of stock), and in 1934 it was transferred to the predecessor company, Winnebago Distilling Company of Illinois and entered on the books at $8,450 (cost) representing the value of the stock issued in payment. The appraisal company made an examination of the property and revalued it at $89,000.

The water rights of a small creek which ran through the property were valued at $72,000, and the land revalued at $17,000. No examination of the possible shut-off of the creek by landowners above the distillery company's property was made, and the water itself is rendered unfit for distillery use by pollution. The assumption was made that the Company would save $18,000 a year by using creek water rather than by purchasing water from the nearby city of Elgin. This figure was then arbitrarily multiplied by 4 and the figure set at $72,000.

The figure of $17,000 for the land was arrived at without regard to previous selling prices of the property and the sale price of comparable property in the vicinity. The tracts had previously sold at $125 an acre, and an expert appraiser with long experience in the vicinity testified before the Commission that the property, including its water rights, had a fair market value of $1,700 or $100 per acre. In addition, title to the property was clouded—the Company was deeded the property by Edward J. Roche (now an official of the Company). Illinois law requires that in the absence of a release by a wife, her dower rights remain unconveyed. Although Mr. Roche was married at the time, his wife did not sign the deed.

In its prospectus, three plans are set forth which will yield heavy profits:[3]

[1] Resources Corporation International *v.* Securities and Exchange Commission. 103 F (2d) 929 (Ct. App. D.C., 1939).

[2] Release No. 2188, p. 2.

[3] Release No. 2188, p. 5.

". . . if all of the whisky is sold as made, and stored in our bonded warehouse, the annual profit is . . . $418,000.00." And "when 125,000 shares are outstanding, the investor's profit will be 33.4%." Under the second plan, "when 70 barrels per day are sold, and 30 barrels are stored in our bonded warehouse . . . the annual profit is . . . $507,924.00. . . . When 125,000 shares are outstanding, the investor's profit is 40.6%." Under the third plan, the "profit after four years [sic] storage—bottled in bond (30 bbls. stored under second plan)" is $1,151,700.00, and "when 125,000 shares are outstanding, the investor's profit is 60.4%."

Under each of the plans the assumed cost is 40¢ per gallon. The sale price for plan number one is estimated at 65¢ per gallon, for plan number two, 88¢ per gallon, and for plan number three the sale price will be even greater since the whiskey will have been aged four years.

There were a number of considerations to iron out. The Federal Alcohol Administration issues permits only if the operator has sufficient capital to operate the distillery successfully. The Company claimed that $150,000 would be sufficient capital to begin operations but could adduce no satisfactory evidence that even this minimum amount could be raised. Another element of uncertainty was interjected by the fact that the Illinois Securities Commission refused permission to sell stock within the state until a minimum of $50,000 cash is on deposit in a bank to the Company's credit.

The formula to be used in distilling the whiskey was 60% corn and 40% small grain to obtain a yield of not over four proof gallons of whiskey per barrel. Dr. Doran, an expert witness, testified that "on the basis of a yield of four gallons to the bushel, registrant would 'go broke'."[4] Emanuel Mottsman, an experienced liquor broker, challenged the estimated sale prices of 65¢ and 88¢ per gallon. Good quality unaged bourbon is available in Illinois at prices as low as 27.5¢ and 29¢ per gallon. Even well-known distilleries are selling it at prices of 30¢ per gallon, because of the vast over-production in the whiskey field. A newly formed company would probably have to sell at prices even further reduced in order to establish itself.

Another item: Paul Gerhardt, an architect, undertook to perform certain services for the Company in return for which he was to receive 10% of the cost of all buildings and equipment placed on the distillery site. Gerhardt had earned 70% of his fee when the record was closed, and despite the SEC requirement of disclosure of all material contracts the registration statement said " . . . there were no material contracts which were not made in the ordinary course of business."[5] Mr. Roche, representative for the Company, excused this failure to disclose because he construed the term "material" to mean building material.

In answer to the SEC requirement for disclosure of the purpose to which the funds raised by the security issue are to be used, the registrant stated $274,414 would be devoted to the "cost of the project" and the balance of the $500,000 used for working capital. But if a minimum amount of $150,000 were to be received within 90 days of the offering, operations were to be begun on reduced cost of buildings and equipment. The SEC comments: "It is not impossible that funds advanced to the registrant in consideration of the issuance of its stock may be dissipated for the salaries of officers and promoters."[6] No plan is set forth as to how the $150,000 minimum is to be utilized; nor is there any indication of how the funds are to be disposed in case it is impossible to raise the minimum of $150,000.

[4] Release No. 2188, p. 5.

[5] *Ibid.*, p. 6.

[6] *Ibid.*, p. 7.

PROFESSIONAL EXAMINATIONS

A Department for Students of Accounting

HENRY T. CHAMBERLAIN

THE FOLLOWING problems were presented by the American Institute of Accountants on May 16, 1940, as the first half of the examination in accounting theory and practice. Candidates were required to solve all problems in six hours. The following weights were assigned: problem 1, 10 points; problem 2, 15 points; problem 3, 20 points; problem 4, 20 points; problem 5, 35 points.

No. 1

The National Fiber Corporation's operations consist of mining and selling a fibrous mineral. At December 31, 1939, the inventory amounted to 25,000 tons of fiber, all produced in 1939. This inventory was valued by the corporation at $19.88 per ton, the average cost per ton produced in 1939.

The following information was procured from the company's accounts and records:

For the purposes of this problem, indirect labor and supplies and other production expenses are considered as variable costs and there are no semivariable costs. Depletion is provided at $1.50 per ton mined, and depreciation on machinery and equipment is computed at the usual rates by the straightline method. Due to an extended slow-down strike in 1939 much less coal was mined in that year than during the three preceding years in which production was considered normal. The rise in the 1939 unit labor costs was explained as the effect of general increases in the hourly wage rates, ranging from 33 to 40 per cent. The increase in the unit cost of supplies and other production expenses is accounted for by an increase in the prices of about 10 per cent. All of these advances date from the beginning of the year.

(a) Is the pricing of the closing inventory at December 31, 1939, at $19.88 per

TONS PRODUCED AND AVERAGE COSTS

Year	*Tons produced*	*Cost per ton*
1936	170,000	$14.65
1937	180,000	14.85
1938	175,000	15.06
1939	110,000	19.88

PRODUCTION COSTS

	Amounts		*Per ton*	
	1938	*1939*	*1938*	*1939*
Tons produced	175,000	110,000		
Direct labor	$472,500	$401,500	$2.70	$3.65
Indirect labor	346,500	286,000	1.98	2.60
Supplies and other production expenses	708,750	479,600	4.05	4.36
Depletion	262,500	165,000	1.50	1.50
Salaries (superintendents, plant clerks, watchmen, etc.)	217,000	233,200	1.24	2.12
Depreciation	227,500	247,500	1.30	2.25
Other fixed expenses	400,750	374,000	2.29	3.40
	$2,635,500	$2,186,800	$15.06	$19.88

ton acceptable for financial-statement purposes? Discuss fully.

(b) Assuming that the closing inventory $19.88 per ton is not acceptable for financial-statement purposes, how should it be adjusted? Present calculations in full and state how the adjustment should be dealt with in the statements.

(c) Discuss briefly the classifying of cost into fixed and variable divisions.

No. 2

The following data are furnished by the Red Desert Copper Company concerning the current year's sales and operations at its mine and smelter:

Inventories at the beginning of the year—		
Ore—valued at book cost, which includes depreciation and depletion 100,000 tons at $2.80 per ton		$ 280,000
Copper—likewise valued at book cost 30,000,000 pounds at 9.8 cents per pound		2,940,000
Production costs, including depreciation but before depletion—		
Ore—2,500,000 tons at $2.052 per ton		5,130,000
Smelting cost—1.5 cents per pound of copper produced, including cost of transporting ore from mine to smelter		
Yield—30 pounds of copper per ton of ore		
Inventories at the end of the year		
Ore	600,000 tons (All at mine)	
Copper	20,000,000 pounds	
All sales of copper at 11 cents per pound		
Ore reserves at the beginning of the year		
Per books—10,000,000 tons, carried at $8,000,000		
No new ore deposits were purchased during the year		
Ore reserves at the end of the year		
Per engineer's survey—13,400,000 tons		

Prepare the following statements showing both quantities and unit costs, computed on three alternative bases of valuing inventories consistently applied throughout the problem:

(a) Cost of ore mined.

(b) Cost of copper sold.

(c) Gross profit on copper sold.

No. 3

Arnett, Jensen, Foltz, and White had formed a partnership on January 1, 1937. The partnership agreement included the following provisions concerning the amounts of cash to be invested, division of profits, drawing accounts, etc.:

	Cash investment	*Profit ratios*	*Withdrawals per month* 1937	1938	1939
Arnett	$ 9,000	15%	$150	$200	$ 250
Jensen	14,000	30	150	200	250
Foltz	15,000	35	150	200	300
White	10,000	20	150	200	250
	$48,000	100%	$600	$800	$1,050

No interest was to be charged on excess drawings or allowed on balances in partners' accounts. The agreement also included the following stipulation governing the withdrawal of partners:

"A partner, by giving at least six months' notice, may withdraw at the end of any calendar year, and he shall then receive the balance of his capital plus his share of the goodwill, the latter to be determined by capitalizing, on the basis of an annual 10 per cent return, the excess of the average annual profit during the last two years over and above a return of 10 per cent on the firm's capital at the beginning of the year of withdrawal."

On June 25, 1939, White gave notice of his intention to withdraw on December

31st of that year.

On the latter date the following summary was prepared of the partner's capital accounts as shown on the books:

	Arnett	*Jensen*	*Foltz*	*White*	*Together*
Investment	$ 9,000	$14,000	$15,000	$10,000	$48,000
Profits 1937	975	1,950	2,275	1,300	6,500
Profits 1938	1,241	2,628	2,263	1,168	7,300
Profits 1939	1,312	2,788	2,460	1,640	8,200
Balance at Dec. 31, 1939	$12,528	$21,366	$21,998	$14,108	$70,000

It was found that the partners' drawings had been charged to profit and loss and that the above capital accounts called for correction in other respects. Consideration was also to be given to the following:

1. Additional provision for bad debts should have been made as follows:

1937	$ 750
1938	452
1939	1,498
	$2,700

2. Depreciation was to be adjusted to more equitable rates, viz.:

	Balances of accounts	
	Frame buildings	*Sundry equipment*
December 31, 1936	$14,800	$3,900
December 31, 1937	24,400	4,800
December 31, 1938	25,400	5,200
December 31, 1939	26,200	6,200
Annual rates taken	3%	6%
To be adjusted to	5%	10%

Additions during the year were depreciated at one-half the annual rate.

3. An electric sign was purchased on July 1, 1938, at a cost of $600 including expense of installation and was charged to profit and loss.

4. On December 31, 1939, the supplies, fuel, etc., on hand were valued at $122, all expenditures of this nature having been written off when incurred. Assume that no adjustment for supplies, fuel, etc., on hand at the close of previous years is required.

(a) Determine the amount due to the withdrawing partner.

(b) Show in schedule form a summary of the partners' accounts after adjustment. Present supporting schedules. also present supporting schedules of adjustments to profits and depreciation.

No. 4

The articles of incorporation of Jones Manufacturing Company state that on or before September 1, 1938, and on or before the first day of September in each year thereafter, as long as any shares of preferred stock remain outstanding, the company shall from its profits set aside as a reserve for the retirement of shares of preferred stock an amount equal to not less than 20 per cent of the net earnings of the company for the fiscal year then last expired, after providing for federal income taxes and after deducting the amount of dividends paid on the preferred stock during such fiscal year. The equivalent of the amount so reserved shall be deposited in a special fund to be designated a sinking fund. The amounts so set aside in the sinking fund shall be applied by the company not later than October 31st in the same year to the redemption of outstanding shares of preferred stock called or purchased in the open market at a price not to exceed $12.50 per share. Preferred stock purchased for the sinking fund shall not be reissued and shall be forthwith canceled.

The following ledger balances and notes are submitted:

	June 30, 1939 Debit	June 30, 1939 Credit	September 30, 1939 Debit	September 30, 1939 Credit
Cash	$ 74,000		$ 90,000	
Other current assets	26,000		28,000	
Fixed assets, less depreciation	150,000		140,000	
Deferred charges	6,000		5,000	
Goodwill	50,000		50,000	
Current liabilities, including all taxes		$ 10,000		$ 15,000
7% cumulative preferred stock, par value $10 per share (authorized 20,000 shares, issued and outstanding 10,000 shares)		100,000		100,000
Common stock, no par value, authorized, issued and outstanding 50,000 shares		100,000		100,000
Capital surplus		30,000		30,000
Earned surplus		6,000		66,000
Net profit		67,000		11,250
Preferred dividends paid	7,000		1,750	
Preferred stock purchased			7,500	
	$313,000	$313,000	$322,250	$322,250

1. The company had a net loss in its fiscal year ended June 30, 1938.
2. The company transferred the sinking-fund cash to a separate bank account immediately after June 30, 1939, but did not record the transfer on the general books.
3. The company regularly pays preferred dividends on March 31st, June 30th, September 30th, and December 31st to holders of record three days before these dates.
4. The net profit for each period is found correct as stated.
5. The balance in the preferred-stock-purchased account represents the cost of the following purchases of 7 per cent cumulative preferred stock made for the sinking fund:

July 6, 1939	200 shares at $ 9.00 each	$1,800
Aug. 31, 1939	520 shares at 10.00 each	5,200
Sept. 7, 1939	40 shares at 12.50 each	500
	760 shares	$7,500

6. All the preferred stock purchased, except the last 40 shares acquired, was properly canceled under the laws of the state in which the company was incorporated.

From the foregoing prepare:

(a) A balance sheet of September 30, 1939, showing the particulars of capital stock and sinking fund in accordance with the charter provisions.

(b) A statement of surplus for the fiscal year ended June 30, 1939, and for the following quarter.

No. 5

The treasurer of the board of education of the City of Q submitted the following statement of the school accounts as at September 1, 1938, the beginning of the fiscal year 1938–1939:

Resources	*Tuition fund*	*Maintenance fund*	*Building fund*
Cash on hand	$1,500	$ 500	$ 3,000
Taxes receivable	3,600	900	600
Buildings and land			200,000
School equipment			10,000
	$5,100	$1,400	$213,600

Liabilities	*Tuition fund*	*Maintenance fund*	*Building fund*
Audited vouchers		$ 500	
Reserve for uncollected taxes	$2,160	540	$ 360
Current surplus	2,940	360	3,240
Capital surplus			210,000
Total	$5,100	$1,400	$213,600

In accordance with the state laws the accounts of the board must show budgetary estimates, resources, and outstanding liabilities, but the revenues must be recorded on a cash basis. The treasurer had estimated that 40 per cent of the balance of taxes receivable would be collected in 1938–1939, and had therefore set up 60 per cent of the amounts due as a reserve for uncollected taxes.

The following budget covering the fiscal year ending August 31, 1939, had been approved by the board:

During the year the treasurer recorded the receipts and disbursements found at the top of opposite page.

On August 31, 1939, a bill was rendered to the board for $1,300 covering the repairs to the school building made in that month. The bill was approved but not paid until later in September, 1939.

It was estimated that of the taxes not collected at August 31, 1939, the following percentages would prove uncollectible:

80% of the taxes of prior levies

20% of the taxes of 1938–1939 levy

	Tuition fund	*Maintenance fund*	*Building fund*
Appropriations:			
For teachers' salaries	$36,000		
For interest on tax anticipation warrants	1,380		
For fuel, supplies, janitor, etc.		$9,000	
For interest		345	
For new school equipment			$ 12,000
Total	$37,380	$9,345	$12,000
Resources:			
Estimated tax collections:			
Prior levies—40% of balance	$ 1,440	$ 360	$ 240
1938–1939 levy	34,440	8,985	8,760
	$35,880	$9,345	$ 9,000
Less—Audited vouchers, September 1, 1938		500	
	$35,880	$8,845	$ 9,000
Cash on hand, September 1, 1938	1,500	500	3,000
Total	$37,380	$9,345	$12,000

On November 15, 1938, the treasurer received notice from the county clerk that actual assessments for 1938–1939 amounted to:

Tuition	$45,043
Maintenance	11,367
Building	10,446

and adequate reserves are to be set up.

From the foregoing information prepare a columnar work sheet, showing for each fund the budgetary estimates, cash transactions, adjustments, and closing entries, as well as the resources, liabilities, reserves, and surpluses.

	Tuition fund	*Maintenance fund*	*Building fund*
Receipts:			
Sale of tax anticipation warrants	$24,000.00	$ 6,000.00	
Tax collections—prior levies	1,480.00	320.00	$ 240.00
Tax collections—1938–1939 levy	36,230.96	9,492.44	9,051.40
	$61,710.96	$15,812.44	$ 9,291.40
Disbursements:			
Tax anticipation warrants paid	$24,000.00	$ 6,000.00	
Interest on tax anticipation warrants	1,380.00	345.00	
Teachers' salaries	36,000.00		
Unpaid bills of Sept. 1, 1938		500.00	
Fuel, supplies, janitor, etc.		7,100.00	
On account of $12,000 school equipment installed			$11,400.00
	$61,380.00	$13,945.00	$11,400.00

Solution to Problem 1

(a) The inventory should not be priced at $19.88 per ton. This figure includes fixed charges which accrued during a period when production was slowed down below normal and consequently the costs of production are overstated. Both the inventory and cost of sales figures should be adjusted for the overhead loss which they contain.

(b)	*Units*
Actual production	110,000
Reduced production due to slow-down strike	65,000
Average normal production	175,000
Fixed charges:	
Salaries	$233,200.00
Depreciation	247,500.00
Other fixed expenses	374,000.00
	$854,700.00
Unit costs of fixed charges, per books:	
Salaries	$2.12
Depreciation	2.25
Other fixed expenses	3.40
Total	$7.77
Correct unit cost of fixed charges ($854,700.00 ÷ 175,000)	4.884
Adjustment per unit	$2.886

Adjustments:	*Per unit*	*Units*	*Amount*
Credit inventory	$2.886	25,000	$ 72,150.00
Credit cost of goods sold	2.886	85,000	245,310.00
Debit loss due to unused capacity	4.884	65,000	317,460.00

(c) Those costs which vary with production are known as variable costs. Examples are direct labor, compensation insurance, repairs, heat etc. Those costs which are constant regardless of production are known as fixed costs. Examples are depreciation, property taxes, management salaries, etc.

Solution to Problem 2

RED DESERT COPPER COMPANY

		First in first out		Last in first out		Average cost	
	Units	Unit cost	Total cost	Unit cost	Total cost	Unit cost	Total cost
Statement of cost of ore mined							
Production costs, before depletion......	2,500,000 T	$2.052	$5,130,000.00	$2.052	$5,130,000.00	$2.052	$5,130,000.00
Depletion...........	2,500,000 T	.52235	1,305,875.00	.52235	1,305,875.00	.52235	1,305,875.00
Total cost of ore mined	2,500,000 T	$2.57435	$6,435,875.00	$2.57435	$6,435,875.00	$2.57435	$6,435,875.00
Statement of cost of copper sold							
Inventory of ore at beginning of year.....	100,000 T	$2,52235	$ 252,235.00	$2.52235	$ 252,235.00	$2.52235	$ 252,235.00
Cost of ore mined....	2,500,000 T	2.57435	6,435,875.00	2.57435	6,435,875.00	2.57435	6,435,875.00
	2,600,000 T		$6,688,110.00		$6,688,110.00		$6,688,110.00
Inventory of ore at end of year............	600,000 T	$2.57435	1,544,610.00	100M—2.52235 500M—2.57435	1,539,410.00	$2.57235	1,543,410.00
Cost of ore smelted...	2,000,000 T		$5,143,500.00		$5,148,700.00		$5,144,700.00
Smelting cost........			900,000.00		900,000.00		900,000.00
Cost of copper produced.............	60,000,000 lbs.	$ .100725	$6,043,500.00	$ .1008	$6,048,700.00	$ .100745	$6,044,700.00
Inventory of copper at beginning of year...	30,000,000 lbs.	.088745	2,662,350.00	.088745	2,662,350.00	.088745	2,662,350.00
Total...........	90,000,000 lbs.		$8,705,850.00		$8,711,050.00		$8,707,050.00
Inventory of copper at end of period......	20,000,000 lbs.	$ .1008116	2,016,232.00	$ .088745	1,774,900.00	$ .096745	1,934,900.00
Cost of copper sold...	70,000,000 lbs.	$ .0955659	$6,689,618.00	$ .0990878	$6,936,150.00	$ .096745	$6,772,150.00
Statement of gross profit on copper sold							
Sales (at $.11 per lb.).			$7,700,000.00		$7,700,000.00		$7,700,000.00
Less cost of copper sold			6,689,618.00		6,936,150.00		6,772,150.00
Gross profit.........			$1,010,382.00		$ 763,850.00		$ 927,850.00

NOTE: The revised depletion rate was determined as follows:

Estimated ore reserves, end of year..................................	13,400,000 tons
Ore mined during year..................................	2,500,000 tons
Ore on hand, beginning of year..................................	100,000 tons
Ore represented by copper on hand, beginning of year................	1,000,000 tons
	17,000,000 tons
Ore reserves, beginning of year, carried at..............................	$8,000,000.00
Depletion included in opening inventory of ore.........................	80,000.00
Depletion included in opening inventory of copper.....................	800,000.00
Amount applicable to 17,000,000 tons..............................	$8,880,000.00

Depletion charge per ton $8,800,000.00 ÷ 17,000,000 at $.52235

Solution to Problem 3

Computation of corrected net profit	*1937*	*1938*	*1939*
Net profit per books..................................	$ 6,500.00	$ 7,300.00	$ 8,200.00
Add—Withdrawals..................................	7,200.00	9,600.00	12,600.00
Cost of sign..................................		600.00	
Supplies inventory..................................			122.00
	$13,700.00	$17,500.00	$20,922.00
Deduct—Additional depreciation..................................	$ 566.00	$ 728.00	$ 804.00
Additional bad debts provision..................................	750.00	452.00	1,498.00
	$ 1,316.00	$ 1,180.00	$ 2,302.00
Adjusted net profit..................................	$12,384.00	$16,320.00	$18,620.00

Depreciation Adjustment—		*As Taken*	*As Adjusted*	*Increase*
1937—				
Buildings—				
Balance 1-1-37	$14,800.00	$ 444.00	$ 740.00	
Net additions	9,600.00	144.00	240.00	
Equipment—				
Balance 1-1-37	$ 3,900.00	234.00	390.00	
Net additions	900.00	27.00	45.00	
		$ 849.00	$ 1,415.00	$ 566.00
1938—				
Buildings—				
Balance 1-1-38	$24,400.00	$ 732.00	$ 1,220.00	
Additions	1,000.00	15.00	25.00	
Equipment—				
Balance 1-1-38	4,800.00	288.00	480.00	
Additions	400.00	12.00	20.00	
Adjustment	600.00		30.00	
		$ 1,047.00	$ 1,775.00	$ 728.00
1939—				
Building—				
Balance 1-1-39	$25,400.00	$ 762.00	$ 1,270.00	
Additions	800.00	12.00	20.00	
Equipment—				
Balance 1-1-39	$ 5,200.00	312.00	520.00	
Adjustment	600.00		60.00	
Additions	1,000.00	30.00	50.00	
		$ 1,116.00	$ 1,920.00	$ 804.00

(a) *Computation of amount due White*

Capital account at 12-31-39			$12,264.80
Share of Goodwill:			
Net profit—1938	$16,320.00		
1939	18,620.00		
	$34,940.00		
Average net profit		$ 17,470.00	
Less—10% of total capital at 1-1-39 (10% of $59,904.00)		5,990.40	
Difference		$ 11,479.60	
Total Goodwill		$114,796.00	
White's share of Goodwill			$22,959.20
Amount due White			$35,224.00

(b)

X COMPANY

Statement of Partner's Capital Accounts
(After Adjustment)

	Arnett (15%)	*Jensen* (30%)	*Foltz* (35%)	*White* (20%)	*Total* (100%)
Original investment	$ 9,000.00	$14,000.00	$15,000.00	$10,000.00	$48,000.00
Net profit—1937	1,857.60	3,715.20	4,334.40	2,476.80	12,384.00
Withdrawals	*1,800.00	*1,800.00	*1,800.00	*1,800.00	*7,200.00
Balance 12-31-37	$ 9,057.60	$15,915.20	$17,534.40	$10,676.80	$53,184.00
Net profit—1938	2,448.00	4,896.00	5,712.00	3,264.00	16,320.00
Withdrawals	*2,400.00	*2,400.00	*2,400.00	*2,400.00	*9,600.00
Balance 12-31-38	$ 9,105.60	$18,411.20	$20,846.40	$11,540.80	$59,904.00
Net profit—1939	2,793.00	5,586.00	6,517.00	3,724.00	18,620.00
Withdrawals	*3,000.00	*3,000.00	*3,600.00	*3,000.00	*12,600.00
Balance 12-31-39	$ 8,898.60	$20,997.20	$23,763.40	$12,264.80	$65,924.00

* Red

Solution to Problem 4

The following adjustments are made to the trial balance:

(1)

Earned surplus		$12,000.00	
Reserve for retirement of preferred stock			$12,000.00
To set up reserve for retirement of preferred stock in accordance with the charter provision:			
Net income, year ended June 30, 1939	$67,000.00		
Preferred dividends paid	7,000.00		
Basis of reserve	$60,000.00		
20% of $60,000.00 = $12,000.00			

(2)

Sinking fund to retire preferred stock	$12,000.00	
Preferred stock purchased		7,500.00
Cash		4,500.00
To segregate cash and to set up the sinking fund		

(3)

Net profit	$ 133.00	
Preferred dividends paid		$ 133.00
To reverse entry for quarterly dividends on treasury stock		

(4)

Preferred stock	$ 7,200.00	
Capital surplus		$ 200.00
Sinking fund to retire preferred stock		7,000.00
To record retirement of 720 shares of preferred stock		

(5)

Reserve for retirement of preferred stock	$ 7,000.00	
Earned surplus		$ 7,000.00
To return to surplus reserve applicable to 720 shares of stock retired.		

(a)

JONES MANUFACTURING COMPANY BALANCE SHEET
September 30, 1939

Assets			
Cash			$ 85,500.00
Other current assets			28,000.00
Fixed assets, less depreciation			140,000.00
Sinking fund to retire preferred stock:			
Deposit in sinking fund		$ 12,000.00	
Less: Preferred stock purchased and retired—720 shares—at cost	$7,000.00		
Treasury stock—40 shares—deducted contra-cost	500.00	7,500.00	4,500.00
Deferred charges			5,000.00
Goodwill			50,000.00
Total assets			$313,000.00
Liabilities			
Current liabilities, including taxes			$ 15,000.00
Capital stock and surplus:			
7% cumulative preferred stock, par value $10.00 per share. 9280 shares have been issued of which 9240 shares are outstanding and 40 shares are held in the sinking fund		$ 92,800.00	
Common stock, no par value, authorized, issued and outstanding 10,000 shares		100,000.00	
Capital surplus		30,200.00	
Reserve for retirements of preferred stock		5,000.00	
Earned surplus (see note)		70,500.00	
Total		$298,500.00	
Less 40 shares of preferred stock held in the sinking fund at cost		500.00	298,000.00
Total liabilities			$313,000.00

NOTE: The figure for earned surplus includes the net income for the quarter ended September 30, 1939 amounting to $11,117.00. No provision has been made in this statement for the reserve to retire preferred stock based upon the net income less preferred dividends for the year ending June 30, 1940.

(b)

JONES MANUFACTURING COMPANY
STATEMENT OF EARNED SURPLUS
July 1, 1938–June 30, 1939

Balance, July 1, 1938	$ 6,000.00
Net profit for the year ended June 30, 1939	67,000.00
Total	$73,000.00
Less dividends paid on preferred stock	7,000.00
Balance, June 30, 1939	$66,000.00

JONES MANUFACTURING COMPANY
STATEMENT OF EARNED SURPLUS
July 1, 1939—September 30, 1939

Balance, July 1, 1939		$66,000.00
Less transfer to reserve for retirements of preferred stock		12,000.00
		$ 54,000.00
Add: Net profit for quarter ended September 30, 1939	$11,117.00	
Transfer from reserve for retirement of preferred stock upon the retirement of 700 shares of preferred stock	7,000.00	18,117.00
		$72,117.00
Less dividends paid on preferred stock		1,617.00
Balance, September 30, 1939		$70,500.00

COMMENT

It is assumed that the charter provision covering the reserve for retirement of preferred stock was not intended to permanently freeze surplus equal to 20% of the net income less preferred dividends. Accordingly the reserve is returned to earned surplus to the extent that preferred stock is canceled under the laws of the state of incorporation.

GENERAL COMMENTS

This set of problems as a C.P.A. examination leaves much to be desired. While the questions, on the whole, are clearly stated, the level of the material is not higher than the intermediate stage. Certainly no instructor would hesitate to assign problems 1, 2, 3 or 4 to a class in the third or fourth semester of accounting.

Problem 1 requires only the allocation of fixed overhead charges between production and unused capacity; it is without complications of any sort. Having read problem 2, one might ask, what have "three alternative bases of valuing inventories" to do with calculating the cost of ore mined? Problem 3 is a simple partnership problem.

The only points in problem 4 seem to be: (a) the treatment on the balance sheet of treasury stock held in a sinking fund, (b) the disposition of the excess of the par value of shares retired over the cost of those shares and (c) the adjustment for dividends on treasury stock.

Problem 5 is no more than "busy-work." The examinee is asked to deal with three funds of a school board but the "points" involved in each are almost identical. The value of repetition of this sort in an examination is doubted.

A suggested time schedule is given on page 285.

Solution to Problem 5

City of Q-Board of Education
Work Sheet
September 1, 1938 to August 31, 1939

	Trial Balance September 1, 1938		Budget Estimates		Cash Transactions		Adjustments		Closing Entries			
							Debit	Credit	Debit	Credit	Resources	Liabilities
Tuition fund												
Cash on hand	$ 1,500	$	$	$	$ 61,710.96[5]	$ 61,380.00[6]	$	$	$	$	$ 1,830.96	$
Taxes receivable prior levies	3,600							1,480.00[7]			2,120.00	
Reserve for uncollectible taxes		2,160					37,710.96[7]	45,043.00[4]				3,458.41
							7,473.63[8]	1,440.00[1]				
Current surplus		2,940	1,500[3]				1,440.00[1]	7,473.63[8]		1,830.96		9,304.59
	$ 5,100	$ 5,100										
Estimated budget surplus			37,380[2]	37,380[3]								
Appropriations:												
Teachers' salaries				36,000[2]	36,000.00[6]							
Interest on tax anticipation warrants				1,380[2]	1,380.00[6]							
Estimated cash revenue			35,880[3]			37,710.96[5]			1,830.96			
Taxes receivable, 1938–1939							45,043.00[4]	36,230.96[7]			8,812.04	
Tax anticipation warrants					24,000.00[6]	24,000.00[5]						
											$ 12,763.00	$ 12,763.00
Maintenance fund												
Cash on hand	$ 500	$	$	$	$ 15,812.44[5]	$ 13,945.00	$	$	$	$	$ 2,367.44	$
Taxes receivable—prior levies	900							320.00[7]			580.00	
Audited vouchers		500			500.00[6]			1,300.00[9]				1,300.00
Reserve for uncollectible taxes		540					1,615.65[8]	11,367.00[4]				
							9,812.44[7]	360.00[1]				838.91
Current surplus		360					360.00[1]	1,615.65[8]		1,067.44		2,683.09
	$ 1,400	$ 1,400										
Estimated budget surplus			9,345[2]	9,345[3]								
Appropriations:												
Fuel, supplies, janitor, etc.				9,000[2]	7,100.00[6]		1,300.00[9]		600.00			
Interest				345[2]	345.00[6]							
Estimated cash revenue			9,345[3]			9,812.44[5]			467.44			
Taxes receivable, 1938–1939							11,367.00[4]	9,492.44[7]			1,874.56	
Tax anticipations warrants					6,000.00[6]	6,000.00[5]						
											$4,822.00	$4,822.00
Building fund												
Cash on hand	$ 3,000	$	$	$	$ 9,291.40[5]	$ 11,400.00[6]	$	$	$	$	$ 891.40	$
Taxes receivable—prior levies	600							240.00[7]			360.00	
Buildings and land	200,000										200,000.00	
School equipment	10,000						12,000.00[11]				22,000.00	
Reserve for uncollectible taxes		360					1,187.68[8]	10,446.00[4]				
							9,291.40[7]	240.00[1]				566.92
Current surplus		3,240	3,000[3]				240.00[1]	1,187.68[8]		291.40		1,479.08
Capital surplus		20,000						12,000.00[11]				222,000.00
	$213,600	$213,600										
Estimated budget surplus			12,000[2]	12,000[3]								
Appropriation for new equipment				12,000[2]	11,400.00[6]		600.00[10]					
Estimated cash revenue			9,000[3]			9,291.40[5]			291.40			
Taxes receivable							10,446.00[4]	9,051.40[7]			1,394.60	
Accounts payable								600.00[10]				600.00
			$117,450	$117,450	$173,539.80	$173,539.80	$148,447.76	$148,447.76	$3,189.80	$3,189.80	$224,646.00	$224,646.00

Key to Entries

1 To adjust the current surplus and the serve for uncollectible taxes at September 1, 1938 to a cash basis.
2,3 To set up budget estimates.
4 To set up taxes receivable for the year ended August 31, 1939.
5 To record cash receipts.
6 To record cash disbursements.
7 To adjust taxes receivable and the reserve for taxes collected during the year.
8 To adjust the reserve for uncollectible taxes to the amount estimated as uncollectible.
9 To set up liability for repair work.
10 To set up liability for school equipment installed.
11 To set up the cost of the school equipment.

Problem 1	30 minutes
Problem 2	60 minutes
Problem 3	60 minutes
Problem 4	60 minutes
Problem 5	60 minutes

A French Examination Problem

Note: *The following problem and solution appeared in Le Commerce (Paris), August, 1939, pp. 227–229. It was one of a series of problems given to candidates for the Accounting Certificate in 1939.*

Translated by William Cooper

Corporation B, on April 1, 1939, issued bonds in the amount of twenty million francs, at a discount of 6%, clear of all taxes except the transmission tax, and has entrusted the financial servicing of the securities to Bank X.

Characteristics of the loan and fiscal charges:

The loan is in 500-franc bonds, repayable at par, issued at 480 francs and redeemable within thirty years, beginning in the 6th year.

Each year a drawing is held on February 5, and the bonds so drawn are to be paid on April 1.

Payment of coupons: April 1 and October 1.

It may be assumed that the company has always been able to pay in full its income tax on personal property.

To simplify the question with respect to registration payments, assume that the following rates have been in force for all declarations of title in the years 1937 and 1938.

Subscription stamp.......	0.2% per year
Transmission tax.........	0.4% per year
Schedular income tax.....	26.0% per year

The average market price of these securities on the exchange has been 475.115 in 1936 and 495.0125 in 1937.

As each coupon falls due, the company recovers the tax for each preceding six months, based on the average market price obtaining on the due date.

Information relating to the year 1938:

On January 1, 1938, there remained only the securities outstanding. At the drawing on February 5, 1938, 860 bonds, redeemable on the following April 1 were withdrawn.

On December 31, 1938, only 198 of these 860 bonds had not been presented for redemption, and of the 2,340 bonds amortized in the three previous drawings, there remained for redemption:

Those falling due on April 15, 1936: two bonds.

Those falling due on April 15, 1937: twenty-five bonds.

On December 31, 1937 (the year preceding), eighteen and seventy-two, respectively, of these same two series of obligations were still unredeemed.

Coupon payments:

The table below gives the status of the coupons remaining to be paid:

Number and due date of semi-annual coupons	Unpaid at December 31, 1937	Unpaid at December 31, 1938
8...April 1, 1933	2	—
9...Oct. 1, 1933	2	2
10...April 1, 1934	3	2
11...Oct. 1, 1934	4	2
12...April 1, 1935	4	2
13...Oct. 1, 1935	18	6
14...April 1, 1936	42	11
15...Oct. 1, 1936	67	28
16...April 1, 1937	107	62
17...Oct. 1, 1937	276	75
18...April 1, 1938	—	119
19...Oct. 1, 1938	—	308

To simplify the work, it will be assumed that the amount on coupons numbered eight to fifteen inclusive has been uniformly set to the bondholders at the rate of 13 francs 80 per coupon on outstanding securities.

The four coupons numbered eight and nine have been treated as profit to the Treasury and covered by a check drawn by

the company on Bank W (another banker for the company).

Bank X, charged with the financial service for the company's securities, discharges its obligation ten days before the due date, by deducting from the balance of Company B's checking account the amount necessary to pay the coupons. The bank performs this service free of charge.

The discount is amortized each year according to the number of bonds which are retired during the fiscal year.

The loan itself is amortized by deduction before each due date, from the income for the fiscal year.

The company opens as many separate accounts as necessary to cover each due date of the coupons and each amortization of the bonds.

1. Show, on the company's journal, all the entries for the fiscal year 1938 (January 1–December 31) which have resulted from the April 1, 1929 loan.

2. Then present the entries relating to the quarterly declaration at the Registry.

These entries should be considered at the end of the work; this will permit, insofar as possible, the avoidance of repetition. Settlements at the Registry are made by check, drawn on Bank W.

Solution:

The bondholders are liable:

1. For the stamp law which recognizes the material existence of the securities; the tax is applied to the unamortized amount of the bonds, is paid quarterly, and is an expense of the company.

2. For the transmission tax which is applied only against outstanding securities. It is calculated on the average market price for the preceding year. The company discharges its obligation each quarter at the Registry (for the outstanding securities on the last day of the quarter) and recovers this amount from the first coupon falling due after payment of the tax. The amount in the declaration, according to the law, should be a multiple of 20 francs; if it is not, it should be rounded off to the nearest multiple of 20 francs in excess of the amount actually incurred.

3. For the income tax on personal property which reaches all income on all securities nominally outstanding, as well as the discount which is being amortized. The companies have the option of retaining the amount of the tax and discharging the obligation by paying at the Registry a quarterly fraction for each declaration in proportion to a fourth of the annual income from which bonds existing in that quarter are discharged.

The declarations should be made at the end of each civil quarter and the discharge at the Registry accomplished before January 20, April 20, July 20, and October 20, respectively.

I. *Entries relating to the servicing of the loan:*

March 22, 1938		
Bank X "Checking Account"		957,616.60
Bank X . . . "Savings Account" for reimbursement of the 6%, 1929, bonds—860 bonds @ 500 francs	\$430,000	
Bank X . . . "Savings Account" for paying the coupons on the 6%, 1929, bonds	527,616.60	
Provision for coupon No. 18.		
Bonds outstanding: 40,000−2,340=37,660 bonds.		
Transmission tax: $\dfrac{0.40\times 495.0125}{100\times 2}=0$ fr 99		
Coupon net: (15 fr−0 fr 99) or 14 fr. 01×37,660=527,616 fr. 60.		

April 1, 1938		
General expenses (bank expense)	\$ 2,638.10	
Bank X "Checking Account"		2,638.10
Commission of 0.50% s/fr 527,616.60, amount of the coupons on the coupons on the 6%, 1929, bonds, due this day (Number 18).		

April 1, 1938		
Profit and Loss, Servicing of Loan	$447,200	
Amortized 6%, 1929, bonds		430,000
Liability for the fiscal year 1938 for the amortization of 860 6%, 1929, bonds drawn at the February 5, 1938, drawing.		
Amortization of discount "6%, 1929, Loan"		17,200
Amortization of the discount on the above bonds in the ratio of 20 francs per security.		
April 1, 1938		
For coupon number 18 of the 6%, 1929, bonds		546,900
"Bonds" Interest accrued on the coupons	$282,450	
The portion accumulated from October 1, 1937, to January 1, 1938, provided for at the end of 1937		
Profit and Loss, servicing of loan	$282,450	
Interest from January 1, to April 1, 1938, on 37,660 bonds: $\frac{15 \times 37,660}{2} = 282,450$ francs		
April 1, 1938		
Coupon number 18 on the 6%, 1929, bonds	$ 37,283.40	
6%, 1929, bonds—to recover on the transmission tax		37,283.40
Tax recovered on coupon number 18 at the rate of 0 fr 99 per security, on 37,660 bonds outstanding.		
April 1, 1938		
6%, 1929, bonds	$430,000	
6%, 1929, bonds, drawn for repayment in the 1938 drawing		430,000
To redeem the 860 bonds drawn on February 5, 1938		
April 1, 1938		
Bank X, Checking account	$ 27.60	
Bank X, Savings account to pay the coupons on the 6%, 1929, bonds		27.60
To follow the advice of Bank X and provide for two coupons (Number 8) @ 13 fr 80		
April 1, 1938		
6%, 1929, bonds, coupon number eight	$ 27.60	
Bank W, Checking account		27.60
N/ check O/ Register, for two number eight coupons set @ 13 fr 80		
September 21, 1938		
Bank X, Savings Account, to pay the coupons on the 6%, 1929, bonds.		
Provision for coupon number 19 established this day	$515,568	
Outstanding obligations: 37,660−860=36,800; 36,800 @ 14 fr 01=515,568		
General Expense, Bank Expense	2,577.85	
0.50% commission on the amount for coupon No. 19 as at October 1. (a variant of the amount set on coupon number 18)		
General Expense, Bank expense		518,145.85
October 1, 1938		
Profit and Loss, Servicing of Loan	$552,000	
Coupon No. 19, 6%, 1929, Bonds		552,000
Gross amount for coupon 19; 36,800 coupons @ 15 francs		
October 1, 1938		
Coupon No. 19, 6%, 1929, bonds	$ 36,432	
Transmission tax—to recover the amount of the tax on the 6%, 1939, bonds		36,432
Taxes recovered on Coupon No. 19 on 36,800 bonds outstanding, in the ratio of 0 fr. 99 per security.		
October 1, 1938		
Bank X, Checking account	$ 27.60	
Bank X, Savings Account to pay the coupons on the 6%, 1929, obligations.		27.60
On the advice of Bank X to cover two number 9 coupons @ 13 fr 80.		
October 1, 1938		
Coupon No. 9—6% bonds	$ 27.60	
Bank W, Checking account		27.60
N/check 0/Register, for two Number 9 coupons @ 13 fr 80.		

December 31, 1938		
6%, 1929, bonds—for redemption: 1936 drawings (18−2) 16×500=8,000...	$ 8,000	
6%, 1929, bonds—for redemption: 1937 drawings (72−25) 47×500=23,500.	23,500	
6%, 1929, bonds—for redemption: 1938 drawings (860−198) 662×500 =331,000	331,000	
Bank X, Savings account—to redeem the 6%, 1929, bonds		$ 362,500
Retirements for the year 1938, following the advice of Bank X.		

December 31, 1938		
Coupons for the 6%, 1929, bonds:		
No. 10; 4− 2= 2 coupons @ 13 fr. 80	$ 27.60	
No. 11; 4− 2= 2 coupons @ 13 fr. 80	27.60	
No. 12; 4− 2= 2 coupons @ 13 fr. 80	27.60	
No. 13; 18− 6=12 coupons @ 13 fr. 80	165.60	
No. 14; 42−11=31 coupons @ 13 fr. 80	427.80	
No. 15; 67−28=39 coupons @ 13 fr. 80	538.20	
No. 16; 107−62=45 coupons @ 14 fr. 05*	632.25	

$$\frac{{}^{*}475.115\times 0.40}{100\times 2} = 0 \text{ fr. } 95 \text{ per semi-annually.—net coupon:}$$

15 fr.−0 fr. 95=14 fr. 05

No. 17; 276−75=201 coupons @ 14 fr. 05	2,824.05	
No. 18; 37,660−119=37,541 coupons @ 14 fr. 01	525,949.41	
No. 19; 36,800−308=36,492 coupons @ 14 fr. 01	511,252.92	
Bank X, Savings account—to pay the coupons on the 6%, 1929, bonds		$1,041,873.03
Payment for the year 1938, following the collections of Bank X		

December 31, 1938		
Profit and Loss, Servicing of Loan	$276,000	
6%, 1929, bonds—interest accumulated on coupons		$ 276,000
Portion accumulated from October 15 to December 31, 1938, on the 6% bonds; 15 fr. per coupon, semiannually, or 7 fr. 60 per quarter. 40,000−(2,340+860)=36,800 coupons @ 7 fr. 50=276,500 fr.		

Entries Relating to the Quarterly Declaration at the Registry

January, 1938 (Before the 20th)		
Registration, or taxes payable	$100,744.84	
Bank W, Checking account		$ 100,744.84
N/ check in settlement for the declared amount of the 4th quarter, 1937		

Stamps:

$$0.05\times\frac{(500\times 37,660)}{100}=9,415$$

Transmission Tax:

$$0.10\times\frac{(475,115\times 37,660)}{100}=17,892 \quad 84$$

Income Tax:

$$6.50\times\frac{(30\times 37,660)}{100}=73,437$$

Total $100,744.84

March 31, 1939		
General expense (Tax, or subscriptions for stamps)	$ 9,415	

Stamps:

$$0.05\times\frac{(500\times 37,660)}{100}=9,415$$

6%, 1929, bonds	18,642.64	
transmission tax—to recover tax		

$$0.10\times\frac{(495,025\times 37,660)}{100}=18,642 \quad 64$$

Profit and Loss, tax on income from bonds	74,555	
$6.50\times\frac{(30\times 37,660)}{100}=73,437$		
Tax on repaid discount: $6.50\times\frac{(20\times 860)}{100}=\frac{1,118}{74,555}$		
Registration		\$ 102,612.64
Amount declared for the first quarter of 1938		
April (Before the 20th)		
Registration	\$102,612.64	
Bank W, Checking account		\$ 102,612.64
Our check to cover the amount of the declaration for the first quarter's share, 1938.		
June 30, 1938		
General expense (Tax or subscription for stamps)	\$ 9,200	
Stamps: $0.05\times\frac{(500\times 36,800)}{100}=9,200$		
6%, 1929, bonds Transmission tax —or to recover tax	18,216.92	
$0.10\times\frac{(495,025\times 36,800)}{100}=18,216\quad 92$		
Income tax on the returns from the 6%, 1929, bonds	71,760	
$6.50\times\frac{(30\times 36,800)}{100}=71,760$		
Registration		\$ 99,176.92

The same items above will be journalized on September 30 and December 31, 1938. In July and October (before the 20th) the same entry will be made as for April to cover the registration, opposite the following sum. . . . . \$ 99,176.92 \$99,176.92

NOTE: The account "Transmission Tax" could be adjusted annually by a debit or credit to "Profit and Loss" according to whether the Company recovers more or less than it has paid to the Registry.

For example, in 1938:

Transmission Tax, 6%, 1939, bonds	\$422.10	
Profit and Loss		\$422.10

But, from the fact that the trasnsmission tax recovered by the Company on the April 1 coupon is based on the average market price for the preceding year, and as the company has based its payment for the fourth quarter on the market price for the next to the last year it is possible that there will be a perceptible difference in the two amounts. It is preferable to leave the account "Transmission Tax,—6%, 1929, bonds" as it is. It will be liquidated only at the end of the loan.

BOOK REVIEWS

Papers on Auditing Procedure and Other Accounting Subjects. Presented at the Fifty-Second Annual Meeting of the American Institute of Accountants. (New York: The American Institute Publishing Company, 1939. Pp. v, 302, $1.00.)

This book contains the papers presented at the September, 1939, meeting of the American Institute of Accountants. Approximately two-thirds of the book is devoted to auditing procedure and requirements, viewed especially in the light of new demands promulgated by recent developments and new thought on the subjects.

Representing, as it does, a contribution by each of sixty men, covering ten general topics of auditing and accounting, naturally it indicates a certain amount of diversity of opinion. Diversity is stimulating to both thought and progress in auditing and accounting development and practice. In introduction, rather than in conclusion, everyone interested in the general fields of accounting, auditing, finance and management should study and discuss, not merely read, each contribution of each man in order to derive the greatest possible benefit from the papers. As to whether any individual reader agrees or disagrees with any one article, is a matter of opinion; however, all readers are advised to remember that demands on auditors are increasing, and the increased work-demands are admirably recognized and considered throughout.

The contents of the volume are arranged in, and will be reviewed in, the following order:

I. Discussion of Auditing Procedure.
II. Inventories.
III. Detection of Fraud by Independent Auditors.
IV. Whose Balance Sheet Is It?
V. Extension of Accounting Practice.
VI. Internal Conduct of An Accounting Practice.
VII. Municipal Accounting Session.
VIII. Progress in Accounting Research.
IX. Income Tax Session.
X. Addresses.

I. Discussion of Auditing Procedure

In this section, recent developments in accounting are surveyed, followed by well-timed discussions of the expectations of the investor, the Securities and Exchange Commission, the commercial banker, and the management, each as a result of the work of the independent auditor. The inevitable limitations of all accounting statements are emphasized, as a result of the limitations and restrictions placed upon the auditor. This is followed by a reiteration of the necessity for the extension of auditing procedure within the limits of reasonable cost to investing stockholders. The Securities and Exchange Commission expects to assure the public investor that he may rely upon the certificate of the accountant to the extent (a) that an audit has been made, (b) that the audit is performed by independent experts, and (c) that the audit and its results may enable the accountant to express an opinion, stated clearly and fairly. This implies rather complete audit procedure, tempered by the adequacy of internal check and control, thus enabling the expression of sound opinion, neither garbled nor misleading; such clarity almost automatically leads to some extension of audit procedure.

Apparently the commercial banker desires an expansion of the certificate or opinion paragraph to the extent of a reasonable recital of the work done, plus a full and factual report of the audit, especially with respect to receivables and supplementarydata regarding inventories. As a result of the demands of the banker as indicated in the book, the accountant is torn between two forces, the client who is endeavoring to maintain reasonable auditing costs and the banker seeking further information as a basis upon which to rest his judgment of risks.

The management of a company expects a verification of its accounting activities followed by approval or disapproval, concluding with a full review concerning the opinions and recommendations of the accountant. This unquestionably is desirable, but some clients do not wish such expansion and some auditors do not present it.

The question of the adequacy of auditing procedure, the extensions of auditing procedure to meet new and growing demands, and studies of the liabilities arising from the accountant's report, all ably discussed, conclude this section.

II. Inventories

The section devoted to inventories deals primarily with discussions pertaining to the auditor's position respecting the testing of the physical quantity of the inventory. Even though the accountants of Great Britain question the wisdom of our extension of audit procedure for inventories, it must be remembered that business in Great Britain and in the United States is not conducted in the same manner nor on the same assumptions so far as the position of the auditor and expectations from him are concerned. The point is emphasized that, although the auditor does adopt additional procedures, conclusive verification of inventory quantities does not follow. This is true, but it should be rememberd that the greater the extension of procedure, the relatively more conclusive are the results.

One man writes that "if only one independent expert or firm of experts is to be employed by the client for confirmation of inventories, there is no doubt that it must be the accountant, rather than an engineer or appraiser." This statement probably will cause a bit of disagreement, particularly when considered in the light of former statements and opinions that most accountants do not, can not, and have not professed to be experts in inventories. From the entire inventories section it is evident that, while our thoughts and positions relative to the inventory and the auditing procedure pertaining thereto, are being clarified, there still exists great diversity of opinion and some uncertainty with respect to our final position. We must exercise care not to be stampeded into a "standard" procedure, when sound analysis can prove that universal standards of procedure are impossible of development. Each client

presents his own individual inventory problem to the auditor, who must act in accordance with his good judgment, based perhaps upon minimum requirements.

III. Detection of Fraud by Independent Auditors

This section presents the methods of fraud commonly adopted by employees. The writer honestly admits that the discovery of employee fraud often is purely accidental, and is not the result of some mysterious sixth sense possessed by the accountant, or the result of barriers to fraud established by systems of internal control. Many people immediately point the finger of accusation at the auditor for his failure to uncover fraud occurring over a long period of time, when, in certain cases, even a detailed audit of each transaction might not reveal one of fraudulent nature. If management could be brought to realize that it so often is responsible for fraud and so often prohibits the detection of fraud by the auditor by erecting prohibitory measures about him, the life of the accountant would be greatly eased.

IV. Whose Balance Sheet Is It?

The majority opinion that the balance sheet is the company's, not the accountants, and that the balance sheet is the responsibility of the accountant, limited by his freedom, the scope of his work, and the terms of his engagement, is the theme of this section. There is one dissenting opinion, challenging the accountant to assume responsibility for the balance sheet and to call it his own instrument. Should this latter view come to be the prevailing one, the work of the accountant would be greatly expanded.

A review of court decisions indirectly concerning the question is very interesting, although as yet no court has evidently been asked to directly determine an answer to the question. Primarily the balance sheet is the representation of the company and secondarily that of the accountant. Of course, there is diversity of opinion with respect to this question, which may or may not definitely be settled.

Extension of Accounting Practice

The section devoted to the extension of accounting practice is a discussion of the position of accountants as receivers, their rôle in reorganization and bankruptcy, the extension of their work in small businesses, the promotional work to be undertaken by state societies, and a few other extension phases. Beyond a doubt, the accountant, in great measure has met the demand for additional services of a greatly diversified nature as those demands have been made upon him; also, there exist many fields of business and many phases of accounting activity in which the accountant has been rather remiss to assert himself. Before a problem can be solved, it must be recognized, and one of the best means of recognition lies in educational work originating within the various accounting societies. The accountant has only begun to tap a potential field of vast proportion. The logical approach to accounting practice extension should originate within the American Institute of Accountants and prominent educators, both groups working through state societies.

VI. Internal Conduct of An Accounting Practice

This section adequately deals with the internal conduct of a private accounting practice, covering all phases from the arrangement of office desks to the organization and execution of the work among the entire staff. From a professional point of view, this section is of lesser importance than any other in the book.

VII. Municipal Accounting Session

The increasing necessity for good accounting and other financial records on the part of municipalities is adequately recognized in the papers presented. Naturally, citizens must be desirous of good governmental accounting, and must be interested in the results of municipal operations. The accountant must be alert to his opportunities. If there is a field for uniformity and standardization in accounting, perhaps it is exemplified most perfectly in the municipal field.

VIII. Progress in Accounting Research

The objectives of accounting research, the methods followed, the bases of operations, and the subjects of research all are fairly treated in this section. Although such a section by nature cannot be astounding or shaking, it is the root of all progress.

IX. Income Tax Session

The Revenue Act of 1939 and the decentralization of the Bureau of Internal Revenue are the principal points discussed. The statement is made that the 1939 act has gone far toward equalizing the tax burden between the taxpayer of steady income and the taxpayer of fluctuating income. This is true only to the extent of the loss carry-over provisions. Of course, not much relief is afforded if a loss is not incurred, and a loss is no pleasure. Most people are familiar with the promotional work of the Institute for readjustment of the income tax laws; however, it appears as though a paper or two dealing with the Institute's work in this direction might have been a timely inclusion.

X. Addresses

The final section is devoted to addresses of a general business and economic nature, with emphasis upon remedial measures necessary for the restoration of business.

Arthur W. Holmes

University of Cincinnati

North Pacific Fisheries—With Special Reference to Alaska Salmon. Homer E. Gregory and Kathleen Barnes. (New York. American Council, Institute of Pacific Relations. $3.00).

Research studies made for one purpose not uncommonly reveal much interesting data in related fields. Such is the case with this study of North Pacific Fisheries. The research reported in this volume is primarily a study of the Alaska salmon canneries, which supply 58% of the average (1934–35) annual value of Northwest fishery products (the remaining 42% being divided

among British Columbia, Washington, and Oregon). The study was sponsored by the American Council of the Institute of Pacific Relations primarily to reveal the causes, the probable effects, and the results to date of Japan's attempted encroachment upon the salmon reserve of the North Pacific.

The authors have presented a comprehensive, factual picture of the problems of an important industry of the Pacific Northwest. Throughout the treatise the various subject discussions are to a satisfying extent based upon statistical and accounting data. This does not mean that this is a book of statistical tables. It is far from that, but throughout the descriptive material is based upon and supported by factual data.

The study reveals the history and many of the difficulties of an industry which is unique and is replete with accounting and management problems. The discussion of "Investment, Profits, and Costs," with its comparative and analytical statements and interpretive tables, is particularly interesting. As stated by the authors, the fisheries of the North Pacific cannot be considered as one of America's great industries. It is brought out, however, that the total investment in assets by Pacific Coast fisheries amounts to over a quarter of a billion dollars. Of this amount approximately 70% is invested in North Pacific fisheries, divided 28% in Oregon, Washington, and British Columbia, and 42% in Alaska (page 176). During the period 1919–34 the industry made profits of $31,031,056 and suffered losses of $30,191,925, leaving the slight profit margin during these 15 years of $839,131 for the industry as a whole (page 192). Studies reveal that average cannery costs in different sections of Alaska ranged from $3.387 a case to $7.868 a case during 1937 and that these costs vary considerably from year to year. In addition to the tax problems of other businesses these Alaska packers pay numerous excise taxes. (These excise taxes, licenses, etc., amounted to 78.5% (page 261) of the entire Alaska Territorial Tax revenue from 1903–35.) It is also interesting to note that although "Seward's Folly" (the purchase in 1867 of the vast icy waste known as Alaska for $7,200,000) is commonly justified solely on the basis of the mineral values obtained from that territory, the total output of Alaska fishery products from 1880 to 1937 amounted to $1,160,844,722. The value of the minerals obtained from the territory during this same period amounted to $748,895,056 (page 251). Today the annual sales value of the fishery products taken from Alaskan waters is nearly 2½ times greater than that of the mineral recoveries (page 278).

This scholarly study is reported in a non-technical style. It tells the story of an industry about which little is generally known, one which has not only had to meet the usual cyclical price and demand fluctuations but also wide fluctuations in supply. To a considerable extent these variations in supply have been due to ruthless overfishing which has resulted in an organized conservation program. After reading this volume one can only hope that the authors will supplement it with one devoted to individual case studies of typical canneries.

F. W. Woodbridge
University of Southern California

The Analysis and Control of Distribution Costs. J. Brooks Heckert. (New York: The Ronald Press Company, 1940. Pp. xvii, 420. $5.00.)

This book presents a reasonably clear and intelligent description and analysis of distribution costs. Because the book is the most complete and the most exhaustive work on the subject, it should prove to be of real interest, especially to the teachers of distributive management, to accountants, and to business executives.

On the whole, the book is written in simple, direct, and readable style. No careful reader should find much trouble in grasping the fundamental aspects of distribution costs and their analysis and control. A good knowledge of the practical application of this subject is more difficult to acquire since accurate and detailed records of distribution costs have been somewhat neglected in the past. Business managers, although generally aware of the fact that the cost of distribution is proportionally greater than production cost, have neglected both the analysis and the control of distribution costs to a much greater degree than the analysis and control of production costs.

In recent years, distributive managers, because of the ever increasing competition, have become more keenly interested in the distribution field. But, because their abilities have not increased rapidly enough, business managers may be unable as yet to grasp significantly the practical application of distribution costs. For this reason, a book on a ground-breaking topic like distribution cost analysis and control should perhaps proceed slowly, carefully, and on the assumption that the reader is not well versed on the subject. Professor Heckert seems to presume a greater knowledge of the subject on the part of the reader than this reviewer is inclined to allow. Of the eighty-three Figures used as illustrations, a number of them are not easy to understand. Headings, in general, are appropriately named but they are not always self-explanatory. Some comments on the methods of derivation would be helpful. otherwise the reader may be able to comprehend no more than he already knew.

The book is divided into twenty-two chapters and four appendixes. As indicated by its title, the book is naturally divisible into two parts. The first part, which comprises seven chapters and one hundred and seventy-three pages, is devoted to the analysis of distribution costs; and the second part, which comprises seven chapters and sixty-three pages, is devoted to the control of distribution costs. Chapter titles are: Introduction; Problems of Distribution Cost Analysis; Method of Distribution Cost Analysis; Analysis by Territories; Analysis by Commodities; Analysis by Channels of Distribution and Methods of Sales; Analysis by Customers; Analysis by Size of Orders; Analysis by Organization and Operating Divisions; Other Analyses of Distribution Costs; Distribution Cost Standards and Control; Control of Direct Selling Expense; Control of Advertising and Sales Promotional Expense; Control of Transportation expense; Control of Warehousing and Handling Expense; Control of Credit and Collection Expense; Control of Financial and General Distribution Expense; The Distribution Cost Budget; Accounting for

Distribution Costs; Distribution Cost Reports; Government Regulation and Distribution Costs.

The analytical part of distribution costs appears somewhat superior to the part on the control of distribution costs. In general, the chapters on the control of the different classes of expenses hardly cover more than a description of the bases of cost measurements of the particular items within the respective groups. For example, Chapter 12 supposedly deals with the "control of direct selling expense," but it gives little, if any, indication on the method of controlling this class of expenses. It explains the extent to which cost standards can be applied. This is followed by a general concept of controllable and non-controllable items, bases of distribution or of cost measurements for each item of direct selling expense, and by showing that it is necessary to have divisional standards. The other chapters on control follow closely along similar lines.

Although this reviewer is in substantial agreement with the descriptive materials on control, the term control is not rigorously applied. A reader who expects to learn how to control distribution costs may find himself disappointed.

If one considers how little real work has been done both by theoretical and practical writers on the subject of distribution costs, Professor Heckert deserves credit as a pioneer in this much neglected subject. It is by far the best work available on distribution costs.

ALFRED D'ALESSANDRO
College of Business Administration
Northeastern University

Accounting for the Individual and Family. Neva Henrietta Radell. (New York: Prentice-Hall, Inc., 1940. Pp. xiv, 348. $3.00.)

It is possible that someone other than a teacher of Accounting should have reviewed "Accounting for the Individual and Family," for in keeping with the old adage, "The shoemaker's children go barefoot," the reviewer and his friends who are teachers of Accounting seem to muddle along at home with a minimum of bookkeeping. This does not mean that the reviewer is not in sympathy with the objectives of the book under review, but only that he finds it too much of the same thing to practice at home what he preaches in the classroom.

As stated in the preface the purpose of the book is twofold: "First, it introduces a system or systems of keeping records that will be as simple as desired by the person with little interest in records, and as detailed as required by the analytical individual. Second, it sets forth patterns of economic living for the individual and the family that portray standards of action in relation to income and day-by-day spending."

The systems of records while described in simple terms are technically sound and involve single entry accounting on a cash basis. The accuracy of the work is checked essentially by balancing beginning funds plus income against expenditures plus closing funds.

The basic accounting records proposed are: Cash Memorandum Book, Check Book Stub, Personal or Household Record Book, and Income and Expenditure Analysis and Control Book.

Supplementary records suggested for more detailed accounting are: Food Cost Analysis Record, Perpetual Inventory (Food), Clothing Cost Analysis, Reserve Record (a record of the amounts deposited in the savings bank and of the purpose of the savings), House Furnishings Record, and Cost of Operation of Automobile.

The Cash Memorandum Book is simply a notebook for recording income and expenditures as soon as they take place. The Check Book Stub records income and expenditures run through the checking account. The Personal or Household Record Book is a columnar journal in which formal entry is made of information collected through the Cash Memorandum Book and Check Book Stub. The Income and Expenditure Analysis and Control Book is essentially a ledger with a separate page devoted to one class of income or expense. Posting is made monthly or weekly. The ledger includes space for budgeted or estimated amounts. "The figures for the period as well as the 'to date' or cumulated ones may thus be compared to and analyzed in terms of the estimated expenditures for the current period and those 'to date'." The degree of simplicity in the utilization of these basic records depends upon the number of income and expense classifications adopted.

The basic records proposed appear to be very practical and workable. As with most accounting systems for the individual or family, the danger is that initial enthusiasm may result in recording income and expense in too great detail so that when the initial enthusiasm has worn off, the record keeping may seem to entail so much work that it is abandoned completely. The book might well have given warning of this and have suggested starting with relatively few classifications of income and expense. It might also have been suggested that an amount could be allotted each week in the form of an allowance for minor expenditures and entered in total in the books of account. Nothing leads more surely to the abandonment of home or individual accounting than having to account for the 2 cents spent for this and the 5 cents spent for that.

With respect to the supplementary records suggested such as the perpetual inventory records of food, and the food control analysis, one would have to become very enthusiastic about record keeping to be willing to adopt them. They are scientifically sound and similar records have been found very useful in business. Doubtless there are many who would enjoy the work entailed in keeping such records but it should be remembered that living is to a considerable extent an art, and many of its simple pleasures can be destroyed if it becomes too scientific.

The book describes records and "patterns of economic living" for the College Girl, the Young Bachelor, the Bride and Groom, the Limited Income City-Family the Average American Family, the Rural Family, the Professional Woman, and the Higher Income Suburban Family. A case study is presented for each of these types of individuals or families and the cases are very interesting and practical. In a subtle way they encourage correct attitudes, the development of ideals, and wholesome living. They present useful ways of looking at liv-

ing, and include a considerable body of factual material that should be helpful.

In each case the development of a financial plan (the word budget is not used) is illustrated and stressed. The approach is very sensible in that it does not attempt to say how much should be spent for this and how much for that, but rather that these things are to be considered and the amount to be spent in any direction depends upon the means and desires of the individual.

It is especially gratifying to see in the cases dealing with families the emphasis placed on financing planning and frank discussions as to how the family's income is to be spent. It is also significant that the financial problems of the higher income family are revealed because young people especially are prone to think that there will be no problems when they reach the higher income groups.

The reviewer found the book to be very interesting and the best of its type that has come to his attention. Perhaps some measure of its effectiveness may be gauged from the fact that despite the obvious reluctance with which the reviewer tackles his own bookkeeping, he has been moved after reading the book to institute some improvements in his records and to do a better job in his own financial planning.

C. B. Nickerson

Harvard University
Graduate School of Business Administration

Business and the Public Library: Steps in Successful Co-operation. Marian C. Manley, editor. (New York, Special Libraries Association, 1940. Pp. 83. $2.00.)

Means for establishing and promoting business departments in public libraries are described in this book compiled by the Public Business Librarians Group of the Special Libraries Association. As Miss Manley explains in the editorial note, it is not a book of routines but rather a survey of possibilities with emphasis on "essential features of flexible service, acute selection and swift action."

The book is based on experience in Bridgeport, Cleveland, Detroit, Hartford, Indianapolis, Minneapolis, Nashville, Newark, Pittsburgh, Providence, and San Francisco. After introductory chapters explaining what the public business library does and how some public libraries have served business in the past, there follow sections of particular interest to librarians on building a collection, cataloging and classifying for business needs, special indexing methods, trade directories and their business use. The section on business information services should prove to be as informative to accountants and administrative officers as it is to librarians.

In the appendices to the book one will find historical data on illustrative business departments, a bibliography on business service, a finding list on new books and pamphlets, and basically sound suggestions to be used in organizing a business library.

Organizations and corporations large enough to require special libraries of their own can use this publication as a handbook of ways in which their local public business library augments their own facilities.

With most compilations of this sort, it is customary for the writing of each section to be assigned to specialists in accordance with their interests. It is this reviewer's opinion that the value of the book would have been enhanced had the various chapters been signed by the persons responsible for their development. This is in no sense a reflection on the value of the book as it stands or on the quality of the compilation for it is a contribution to an important phase of special librarianship and takes its place along with the growing number of definitive works in that field.

Harry C. Bauer

Tennessee Valley Authority

Credit Manual of Commercial Laws, 1940. (New York: National Association of Credit Men. Pp. vi, 761. $6.50.)

Although this volume was issued by the National Association of Credit Men "in order that credit and business executives may have a convenient guide" to legal principles and existing statutes, it can serve a far wider clientele. Students and practitioners of Accounting will find its contents of particular interest; the ordinary citizen can benefit from much of the information contained in it.

The book is divided into nine parts of which the first deals with Making the Sale. Its 123 pages provide a text dealing with such topics as contracts, corporations, partnerships, agency, the law of sales, title retention contracts, warehouse receipts, state fair trace acts, and export sales. References to specific statutes and decided cases abound, and a useful calendar of corporation reports and taxes is included.

Part II deals with Collecting the Account methods, the law of libel, collection by suit, negotiable instruments, commercial crimes, fraudulent conveyances, liens, bonds on public improvements, and misapplication of construction funds are discussed in 180 pages, with definite references to situations existing in the several states.

Part III gives a 190-page summary of the most important business laws arranged by states. Under Massachusetts, for example, assumed name laws, bad check laws, bills and notes, bonds on improvements, bulk sales law, chattel mortgages, conditional sales, conditional sales of fixtures, construction funds, jurisdiction of courts in collection, claims against decedents' estates, exemptions, false financial statements, fraudulent conveyances, holidays, legal rates of interest, limitations of civil actions, rights of married women, mechanics' liens, negotiable instruments, partnership, sales, sales and occupation taxes, statute of frauds, trust receipts, and unemployment compensation are the topics treated. Useless repetition is avoided by mere reference to points treated elsewhere in the volume.

The Bankruptcy Law of 1938 and the Text of the Chandler Act are the principal subdivisions under Insolvency, given 120 pages in Part IV.

Part V deals with Federal Regulations Affecting Trade. Such a timely subject as the Robinson-Patman Act is discussed under Anti-Trust and Trade Regulation Laws. The Federal Wage and Hour Regulations and Contracting with the United States Government

also receive attention. This part contains nearly 100 pages.

The remainder of the volume contains information concerning the National Association of Credit Men, a directory of referees in bankruptcy, specimen forms used frequently in credit and collection operations, and tables arranged by states dealing with limitations for civil actions, bulk sales law requirements, and exemptions (homestead, personal, wages).

Arthur W. Hanson

Harvard University
Graduate School of Business Administration

Introduction to Investment Analysis. Kenneth Field. (New York: The Ronald Press, 1940, Pp. 340. $3.50.)

This book has been written primarily for college students, presenting the analytical approach to investment problems. The study is divided logically, though not formally, into two sections. The first part contains descriptive material on the general factors affecting investments. The second develops the methods and procedures used in the analysis and evaluation of the important corporate forms of industries.

The first section includes chapters on the investment program, the mechanics of purchasing securities, the nature of the return on capital and the factors bearing upon that return, the arithmetic of investment values, and a summary of the legal and economic bases of investment value. The corporate forms covered in the second part, which comprises three quarters of the book, are utilities, rails, industrials, insurance companies, banks, investment trusts, governments and real estate borrowers.

Throughout the book the author presents a considerable amount of statistical information and gives a number of specific examples in support of his methods and arguments. In this way he not only makes the text much clearer but imparts a concreteness which should go far towards helping to meet the "analytical challenge." At the same time these data are kept below the burdensome level.

In the industry analyses in particular, he also resorts extensively to rule-of-thumb yardsticks for gauging investment values. Of course he recognizes that these measures are arbitrary and serve merely as convenient tools, stating: "There is no substitute for sound judgment, and no procedure can be laid down which will instill sound judgment. Only repeated analyses with discussional helps will do this." A form for summarizing the pertinent company statistics has been included in each chapter covering an industry.

As an aid in security analysis, the techniques given should be of definite use to the student. The procedures set forth are well aimed at directing the reader's thoughts along the important channels not only in the industry studies but also in the more general problems of actual security purchasing. However, if this book is to be used as a text in an elementary course in investment management, the security evaluation work covered would probably have to be preceded by a somewhat fuller development of the investment problem as a whole. While this is partly covered in the first chapter and is touched upon incidentally in other sections of the text, it probably has not been given the emphasis and attention it deserves. The addition of such material presumably would mean a more complete discussion of the problems and requirements of particular individuals and institutions, including an expansion of the section on the risks to be met and the place of the investment program in meeting those risks. Next, the introductory survey might take up a summary of the investment characteristics of the available media such as bonds, preferred stocks, common stocks, real estate and insurance. These fundamentals could then be tied together by showing the place of each of these forms of security in the investment portfolio.

It is probably too much to expect a complete coverage of the entire investment problem in one volume. Perhaps the author will someday supplement his present text with another entitled *An Introduction To Investment Policy.*

Lester F. Johns

Standish, Racey & McKay, Inc.
Boston, Massachusetts

Manual on Commercial Law. Fourth Edition. A. Lincoln Lavine. (Professional Publications, New York. 1940. Pp. x, 694. $4.75.)

In this Manual the author, an active and experienced practitioner and teacher in the field of law, has undertaken the difficult task of framing a practical text on Commercial Law from the questions and problems given by the New York C. P. A. Examining Board from 1915 through 1939. The present is the fourth edition of the work. The scope of previous editions has been expanded and amplified to meet the changes brought about by recent legislation in Bankruptcy, Insurance, Taxation, Social Security and other fields. The Manual is divided into two parts. Part I, with 235 pages, is a summarized statement of basic legal principles and definitions arranged by legal subject. This summary is concise, to the point and covers the ground adequately. It contains some hypothetical cases with references to the specific legislative act or the court decision supporting the proposition set forth, and can generally be relied on without hesitancy as to its accuracy. The reader, however, must bear in mind that much of the matter contained therein may be based solely on New York law. To insure absolute correctness one should investigate the law of his own jurisdiction.

Part II, with approximately 459 pages, contains the classified C. P. A. examination questions and problems with full and complete answers, fortified with an abundant supply of actual court cases and other legal authorities and references. The facts of the cases are discussed in detail, and the reasoning of the courts is set forth usually in the very words used by the courts in expressing the principles of law applicable to the particular fact situation.

The first edition of this work was written primarily as a handbook to guide candidates for New York C. P. A. certificates in preparing themselves for C. P. A. examinations. It was the first of its kind ever compiled;

and there is no doubt that the author succeeded admirably in accomplishing his purpose. Your reviewer knows of no better method of preparation for examinations. The present edition is even more valuable than the previous editions since new materials and cases have been incorporated. The author has recognized the fact that bare legal definitions and questions-and-answers are indicative of the cram school, and to avoid such an evil he has in Part II attempted to steer clear of mere enumeration of conclusions and single-sentence statements. The answers in Part II are keyed by cross references to the summary in Part I.

Naturally the Manual is more valuable to C. P. A. and bar examination candidates than to the active practitioner and the college student. The work, however, is not a mere quiz book. The scope of the subject matter is broad and covers sufficient ground to give the reader a well balanced view of business problems of a legal nature. It has been widely used as a college text and as a reference for practitioners in law and accounting. Your reviewer would certainly recommend it as a text for a short course in Commercial Law for college students, and in those colleges where the Commercial Law course is longer, your reviewer would recommend this work as a supplement to the regular text.

The appendix contains a specimen of the New York C. P. A. examination in Commercial Law. The entire work is well indexed. One essential of a good text on Commercial Law is the inclusion of the complete text of the Uniform Laws. The author for some reason not disclosed has not incorporated the uniform acts in the appendix. As a whole, the Manual is excellent and is well written in understandable language.

JOHN C. BAUGH
University of Tennessee

The Illinois Segment of the Nation's Economy for 1935: A Bookkeeping Picture. F. G. Dickinson, Franzy Eakin. (Urbana: University of Illinois, Bureau of Business Research, 1940, pp. 132.)

This study is the second exploration into the totality of modern economic life and tests the application of concepts employed in an earlier bulletin, *A Balance Sheet of the Nation's Economy*, by applying them to one segment of the nation's economy. The intention of the authors is to present a bookkeeping picture of the economic activities carried on within the boundaries of Illinois, together with the economic role played by the people of that area.

To this end the study is divided into five sections. Chapter I discusses the more important concepts; Chapter II considers some of the problems incident to the inclusion of both private and public items; Chapter III presents the grand totals for the following seven groups: Agriculture; Industry, Commerce, and Utilities; Finance; Banking; Tax-Exempt Institutions; Government; and Individuals; Chapter IV includes the methods, data, and sources used; and Chapter V offers a few interpretations.

As to the results and their interpretation, a figure of some $23 billion was derived for the net worth of the people of Illinois in 1935, and physical assets were set at $21 billion. The authors emphasize that any data drawn from this material should be used with care. So many estimates had to be made because of insufficient information that the study is but a beginning. The figures reveal clearly the contrast between the ownership interests in agriculture and industry; debts, profits, and taxes are also discussed in terms of an accounting-statistical picture of the economy.

The authors hope that the combination of accounting and statistical technics will suggest the possible use of this device as a method of recording economic history. Certainly the study is a scholarly approach to an exceedingly complex problem and points the way to the necessity for more data and future studies of the nation's economy in terms used by business men.

VIRGINIA JENNESS
Harvard University
Graduate School of Business Administration

Budget Principles and Procedure. John R. Bartizal. (New York: Prentice-Hall, Inc., 1940. Pp. xviii, 219. $2.75.)

In limiting the subject matter of this book the author states in the preface, "It has seemed advisable to exclude from the scope of this book considerations of diverse operating and accounting conditions, and the problems of special businesses, because of the probability that any attempt to deal with all such possible variations would distract the reader's attention from the orderly progress by which the detailed estimates of the various elements of operations are assembled in a complete and coördinated budget."

The purpose of the limitation stated above seems apparent; the author's desire is to present an exposition which will serve as a textbook on budgetary control, one which will enable the students to follow the author's illustration of a hypothetical company through the maze of individual budgets without losing the thread which ties all of the components into the unified summary budgets for the company as a whole: the balance sheet and the profit and loss budget.

In view of the limitation imposed by the author, and the reasons behind this restriction in the scope of the book, the author achieves his purpose admirably. The use of a comprehensive example, followed closely throughout the book, holds the reader's attention and enables him to follow each phase of the budgetary activities until it assumes its ultimate place in the comprehensive budget set-up. Moreover, the use of the hypothetical business manufacturing three products, which serves to emphasize the interrelations and interdependence of all phases of business activity, is of great importance for pedagogical purposes. Mention should also be made of the elaborate set of problems presented in the appendix as a supplement to the examples used in the text. The problems are well prepared, and follow the illustrations made throughout the book.

The clarity of presentation, however, has not been achieved without disadvantages. For one thing, the use of multifarious examples, showing the figures included in the various budgets, tends to convey the impression that budgets are merely compilations of figures prepared by accountants. The examples in the book may be viewed as the results of a mathematical analysis of various phases of the hypothetical company's operations, and consequently the reader may assume that

budgets are largely the results of mathematical calculation. Because of the vast importance of the "human factor" in budgetary control, the impression of a mathematical analysis may be quite detrimental.

Another result arising from the emphasis placed upon detailed illustrations is the fact that the author does not discuss, to any length, questions which cannot be illustrated by figures. For example, the vital question of securing the coöperation of the entire organization in achieving the budgetary goal is merely mentioned. The problem of judging budgetary performance by spheres of individual responsibility, the question of the variable budget, and budgetary revisions, remain at the close of the book almost untouched.

In summary, it must be pointed out that the author undoubtedly realized the inherent difficulties and disadvantages of limiting the scope of the book as noted at the beginning of this review. His decision to sacrifice a comprehensive coverage of many vital budget problems in order to secure clarity of presentation was undoubtedly in favor of pedagogical principles.

CHESTER L. SEELEY

American Optical Company
Southbridge, Massachusetts

1940 Tax Diary and Manual. (New York: Prentice-Hall Inc., 1939. Pp. vii, 430 in text. Pp. 507 in diary. $6.00.)

The *1940 Tax Diary and Manual*, now in its fifteenth annual edition, contains in outline form an explanation of the important taxes levied by the federal and state governments. A chart, at the beginning of the book, indicates, state by state, the prevalence of personal and corporation income taxes, sales and use taxes, gift and death taxes, intangible property tax, stock transfer and chain store taxes; it is not intended to be explanatory.

The outlines of the personal income tax laws in the various states are clear and concise. The headings are well chosen to give pertinent information such as who is taxable, taxable and non-taxable income, deductions, credits, rates, filing, payment and other administrative data.

The section on state corporation taxes is particularly helpful. The matter involves first, initial taxes, payable at the outset by a new domestic corporation or a foreign corporation seeking to do business within the given state. Next, the annual taxes on corporations are outlined as to basis of tax and rate. The uniformity of treatment affords easy comparison. There is no attempt to do more than to set forth the basis and rate in each case; furthermore, the outline is concerned with only general business corporations; special types such as insurance companies, banks, public utilities, etc., are excluded.

The subject of Federal gift and estate taxes is presented in a condensed but clear manner, sufficient to give an ordinary person a general understanding of how these taxes operate. A series of charts follow which outline the inheritance and estate tax rates in the various states. A discussion of the federal income tax concludes the explanatory material consuming in all over four hundred pages, about one half the book.

The remaining half of the book is devoted to a diary. For each day of the year, an attempt has been made to draw the user's attention to every tax and tax report due that are of interest to corporations.

The *Tax Diary and Manual* should be of interest to every business executive, who, although not concerned actually with the preparation of returns, desires to keep up to date on general tax matters. He, too, should be kept alert daily as to his or his company's rights and obligations taxwise whether federal, state or local.

WILLIAM F. CONNELLY

New York University
Graduate School of Business Administration

Executive Compensation Practices of Retail Companies: 1928–1937. John C. Baker. (Boston: Harvard University Bureau of Business Research, 1939. Pp. vi, 50. $1.50.)

Interest in compensation of executives of large companies arises from (a) popular curiosity about what the "big shots" get, (b) recognition of the social problem of developing and utilizing sound executive leadership in our economic life, or, (c) for a comparative few, deciding upon compensation in specific cases.

The present study deals primarily with plans or methods of compensation. Some figures on amount of pay are included, but those seeking sensational examples of high salaries will find newspapers or socialistic pamphlets better sources. Mr. Baker is concerned with the more fundamental problems in his monograph.

The use of formal salaries, commissions, informal bonuses, formal bonus plans, stock purchases, stock options and retirement allowances is analyzed in terms of current practice and recommended procedure. Much of the specific information about current practice is taken from S. E. C. reports and annual reports to stockholders. Interpretation of such data is very difficult due to differences in responsibility, competition for executives, ability of company to pay salaries, past practices of company, stock ownership of executive, or thought given to what constitutes a sound compensation plan. Interpretation is also difficult because motives or reasons for the plans adopted are rarely revealed. Those curious about compensation plans used by retail companies will find a convenient summary, but as a guide to satisfactory executive compensation—either from a social viewpoint or for a specific company—the value of the statistics is almost nil.

The principal contributions in the report are Mr. Baker's comments on the advantages and limitations of different methods of compensation. He considers such things as the value of hindsight in informal bonus plans compared with foresight required for formal bonus plans, the problem of internal jealousies, the need for flexibility, plans that place emphasis on immediate profits rather than long-run profits, and non-financial incentives such as prestige, power, and fun of the job. Unfortunately, much of this analysis is interspersed in the description of reported practice, and the reader has to ferret out those ideas which have general applicability.

WM. H. NEWMAN

University of Pennsylvania
Wharton School of Finance and Commerce

State-Chartered Savings, Building and Loan Associations in Illinois 1920 to 1936. Arthur H. Winakor. (Urbana: Bureau of Business Research, University of Illinois, 1939. Pp. 45.)

This study presents a picture of the trends in financial condition of state-chartered savings, building and loan associations in Illinois during the years indicated. The study is divided into three main parts: operations of state associations, 1920–1936; distribution of state associations according to size of community; distribution according to amount of total assets. Also given are a summary and an appendix containing various statistical tables. The material for the study was taken primarily from the Annual Reports of Mutual Building, Loan and Homestead Associations compiled by the Auditor of Public Accounts of the State of Illinois.

The influence of changing economic conditions upon the number of associations, the make-up of their financial condition and the methods of their operation is set forth in the bulletin. The number of state-chartered associations increased from 714 in 1920 to 933 in 1930 and then gradually decreased through merger, liquidation and changing to Federal Charters to 744 in 1936. Through percentage analyses of assets, liabilities and capital of the associations are brought out such changes as the decline in the asset loans on real estate and the increase in the asset real estate since 1930; the increase in delinquent installments and advances to borrowers for payment of taxes and interest; the decline in importance of installment shares and the increase in prepaid, full-paid and matured shares. Various possible reasons for these changes are discussed.

While the study is concerned with associations of Illinois, many of the findings undoubtedly are true of associations in other localities. The reviewer, for example, has seen similar changes in financial condition develop in a number of associations in the Philadelphia area. Anyone interested in building and loan associations will find it profitable to read the results of this careful and well-written study.

Arthur D. Maxwell
University of Pennsylvania
Wharton School of Finance and Commerce

Manual of Teachers College Accounting. Edward V. Miles, Jr. (Washington, D. C.: American Council on Education, 1940. Pp. xiii, 190.)

Individuals responsible for the business conduct of educational institutions look to the Financial Advisory Service of the American Council on Education for advice which is practical and wise. Their publication entitled "Manual of Teachers College Accounting" by Edward V. Miles, Jr. is recommended as a "reference and guide for the business offices of all colleges." The Council does not sponsor publications which are without merit.

This volume handles its subject matter adequately and without verbosity. The classification and discussion of material is clear and logical; the sequence in which the chapters are set forth, excellent. The accounting processes are discussed in non-technical language. Sufficient accounting entries are given to make clear the accounting procedures suggested. Excellent forms are segregated in the last chapter. The work is well indexed.

This volume is all its purports to be. The clarity with which the objectives are stated and the discussions and examples which show how these ends can be accomplished should make the volume of general interest to others in allied accounting fields.

Richard W. Thorpe
Radcliffe College
Cambridge, Massachusetts

UNIVERSITY NOTES

Compiled by HARRY D. KERRIGAN

University of California at Los Angeles

Beginning in September, 1940, the college of business administration will offer graduate study leading to the degree of Master of Science.

Recent meetings were as follows: An occupational conference was held April 15–18. There was one general session and fifteen sectional sessions. The accounting section was addressed by a number of local professional accountants and controllers. On May 13, the Los Angeles chapter of C.P.A.'s met on the campus. Senior students were invited as guests. Professor Frisbee spoke on "What is Earned Surplus?" to about 90 in attendance. Professor Karrenbrock addressed the Los Angeles chapter of the N. A. C. A. at a recent meeting on the subject of "Avoiding Fluctuating Unit Costs."

University of Colorado

Charles F. Schlatter of the University of Illinois will teach in the first term of the 1940 summer quarter. William D. Morrison, a past president of the American Society of C.P.A.'s, was recently elected an honorary member of the local chapter of Beta Alpha Psi.

University of Denver

The following men have been added as lecturers in accounting: Stanley V. Davies and Thomas E. Stanley. A newly adopted rule reads as follows: "Any student whose grade average is below B in the first three courses in a department of his major interest be advised not to major in that department unless the head of the particular department makes a recommendation to the contrary."

University of Illinois

George B. McCowen, assistant professor at Oklahoma A. and M. College, will receive the Ph.D. degree this June. Engaged in writing theses for the doctorate are Messrs. C. P. Slater and J. M. Carrithers.

University of Indiana

David W. Thompson, who has been taking graduate study and also teaching here during the past year, will leave for Birmingham, Ala., where he will teach as associate professor of economics in Howard College. R. D. Surick, instructor, is leaving to enter industrial accounting practice.

University of Kansas

Professor John G. Blocker's "Cost Accounting" will be published by McGraw-Hill Book Company this June.

University of Kentucky

An article entitled "Inconsistencies in Public Utility Depreciation," by Professor Robert D. Haun, appeared in two recent issues of the *Michigan Law Review.*

Louisiana State University

The Southern States Accountants' Conference, with the general theme of "Accounting in the Public Interest," was held April 25–27. Attendance numbered 276. Professor E. A. Saliers addressed the accounting section of the Southwestern Social Science Association at Dallas, Texas, on the subject of "The University Curriculum in Accounting."

University of Nebraska

Coming as assistant professor of accounting is Carl Nelson, who is now teaching at Kansas State College of Agriculture. Beginning next year, two courses will be offered in cost accounting, one introductory and one advanced. Dana F. Cole's book, "Beginning Accounting," will be published this summer by Thomas Y. Crowell Co. of New York. Laboratory manuals accompany the book.

Ohio University

Beta Psi, accounting honor group, sponsored its second annual forum on April 30. Professor Ralph F. Beckert acted as chairman, and the topic was "Internal Check and Audit Procedure." Speakers included several members of the N. A. C. A. from Columbus, Ohio: F. Preston, R. J. Reynolds, and J. W. Sheeran.

University of Oklahoma

Professor W. K. Newton has been appointed a member of the state board of accountancy. V. Lauren Shelton will go to Washington State College for the summer to teach accounting.

Stanford University

Nine second-year men of the Graduate School of Business received experience in public accounting during the winter quarter as employees of leading firms in Los Angeles and San Francisco.

Dean J. Hugh Jackson was elected president of the American Association of Collegiate Schools of Business for the year 1940–1941. The association held its 22nd annual meeting at Austin, Texas, April 18–20.

University of Tennessee

P. W. Newman, who is employed in the Dallas, Texas, office of Arthur Andersen & Co., spent the spring quarter at the university teaching accounting. Professor Harold Read will be on leave of absence next year in order to continue graduate study at Northwestern University.

University of Texas

Fladger F. Tannery is on leave of absence to study state accounting practices. The study is made as a project of the Rockefeller Foundation. Professor D. M. Beights of the University of Florida will teach in the 1940 summer session.

Yale University

Thomas R. Hill, instructor, has accepted the Royal Victor fellowship for study in the Graduate School of Business, Stanford University. William J. Schlatter, instructor, will spend the first semester of next year doing graduate work at the University of Illinois.

to
is
on.
of
on.

the
nate
iam
se-
the